✔ Customising ✔ Security ✔ Multimedia ✔ Google Play

Android

Volume 4

Tips, Tricks, Apps & Hacks

Unlock the potential of your Android device

For all Ice Cream Sandwich & Jelly Bean devices

Top tricks to supercharge your phone

Breathe new life into your handset

571 essential hints and tips inside

Welcome to Android

Tips, Tricks, Apps & Hacks

In just a few short months the Android landscape has once again shifted, revealing some stunning new devices and an overhaul of Google's myriad apps and services. Along with the Jelly Bean update, staples like the Google+ social network and the recently introduced Android Beam have been powered up, while brand new features such as Google Now have transformed the operating system. The speed at which this market-leading platform continues to develop is invigorating, and there's always something new for an Android fan to discover. Welcome to the fourth volume of **Android Tips, Tricks, Apps & Hacks**. We've written this book to show you the real capabilities of your phone or tablet and teach you how to master every aspect of it, from making your battery last longer to setting up your own Wi-Fi hotspots. For the adventurous Droid fans among you, we've put together a complete guide to hacking your device, explaining why you might want to give it a try and how to unroot your phone should you want to get back to normal. Finally, we round things off with a tour of the best Holo-themed, Android-only and non-Google apps to ensure that no matter what your preference, there's an app we can recommend to you. Enjoy!

Android
Tips, Tricks, Apps & Hacks

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IMAGINEER OF THE YEAR
DANIELLE DIXON

IMAGINE PUBLISHING

TEAM OF THE YEAR
BOOKAZINES

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50 essential tips & tricks

Every Android fan will use their device differently depending on their lifestyle – here we show you the top ten tips for each kind of user

As an OS, Android has the perfect balance between being friendly to beginners while also including a good amount of features to keep the most knowledgeable of mobile users happy. Novices can benefit from having all the key elements of a mobile phone in the palm of their hands, and with recent updates to the Android operating system, using an Android device has become a whole lot easier. On the other side of the scale, keen mobile users will be able to take full advantage of Android's flexible nature and really push their device to the max.

In recent times, a new breed of users have emerged, media consumers who want to be able to watch TV and movies, download music and stream their favourite radio stations. To keep up with these changes, the Android OS has itself shifted to cater for these people, with the main focus on the Google Play store. Similarly, Android now caters for people who want their phone to be a business companion, and for those who want to use their phone as a replacement for their desktop computer.

Whatever your reason for purchasing an Android phone, you'll find that underneath its shell is an operating system full of interesting and intriguing features that'll make sure your experience with your Android phone is the best it can possibly be.

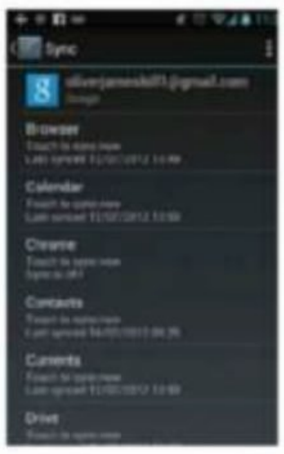
Top 10 tips for

First time buyers

Tips and tricks for people new to the Android OS

If you're new to the Android OS, it can at first be a little daunting to get around. On every screen is another feature for you to explore, and with frequent updates, the sheer range of features is always expanding. However, once you've spent a little time getting to know your Android and exploring all of these features, you'll find that your new handset really does extend the possibilities of your life – giving you instant acess to media and information as and when you need it, and helping you to stay close to everyone who matters to you. To help guide you through the initial set-up and ensure that you have a smooth start, we've put together ten of the most essential tips and tricks to get your Android phone up and running in no time at all.

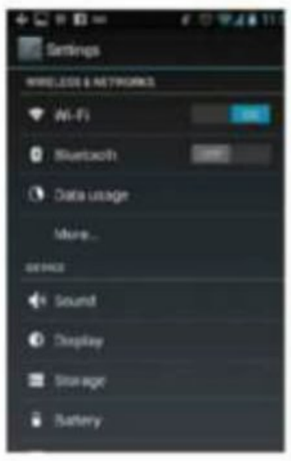
"Ten of the most essential tips and tricks to get your Android phone up and running"



1. Create a Google account

One of the first things you'll want to do is take full advantage of all the Google apps you'll find pre-installed on your device. To get going with them, you first need to create a Google account. This can be used in conjunction with every single Google app. By opening up one of the Google apps for the first time, you'll automatically be taken to the 'Create an Account' screen, from which you'll be guided through the creation process.

Difficulty rating: 1 **Time taken:** 5 minutes



2. Explore your settings

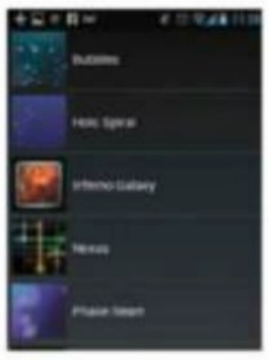
Your phone's settings can be accessed through the Settings app within your app drawer. When you open up this app, you'll be able to explore all of the ins and outs of your device, and manage every little aspect of how your phone performs and handles apps and data. At first it can seem a little daunting, with the sheer volume of settings on offer, so you should take a couple of minutes to really explore the various menus and familiarise yourself with the content.

Difficulty rating: 1 **Time taken:** 2 minutes

3. Set yourself an alarm

Make sure you're wide awake in the morning by setting an alarm on your phone. One of the most useful things we use phones and devices for, simply open up your app drawer and go to the Clock app. On the following screen, you'll see a small line of text saying 'Set an Alarm'. From here you can enter the details of your alarm and set the days you want it to wake you up on. Just make sure you remember to turn it off if you want to sleep in on a Saturday!

Difficulty rating: 1 **Time taken:** 1 minute



4. Add a new wallpaper

If the wallpaper that comes as standard with most Android phones doesn't take your fancy, you can change it in a number of ways. By long-pressing on your home screen you can choose from one of the other pre-installed wallpapers, or even use a picture you took yourself using the camera on your phone. Once you've created a Google account, you can also download apps containing new wallpapers from the Play Store.

Difficulty rating: 2 **Time taken:** 5 minutes

5. Set a new ringtone

Phone calls are the bread and butter of using your smartphone, and what better way to personalise your phone calls, than by setting a new ringtone? Select the Phone app from your app drawer, and press the options button located on the bottom right. From here you'll able to change your ringtone to one of many futuristic sounds that'll give your device the individuality that will set it apart from other tones.

Difficulty rating: 1 **Time taken:** 2 minutes

6. Establish a Wi-Fi connection

By establishing a Wi-Fi connection, you can save yourself from using up all your monthly data, which is especially useful if you plan to download lots of apps. And there are a lot of apps! Open up the Settings app, and select the network option from the top of the list. By then pressing on the Wi-Fi option, you can scan for Wi-Fi connections, from which you'll need to enter a password to connect to.

Difficulty rating: 2 **Time taken:** 4 minutes

7. Turn on Bluetooth

Bluetooth is a great way of sharing images, audio and other files quickly and easily. Open up the networks tab within your Settings app and select Bluetooth from the list. Now press the switch at the top of the app to enable Bluetooth and begin searching for devices in your area that also have Bluetooth enabled. You can then connect to any of these devices and begin sharing.

Difficulty rating: 1 **Time taken:** 1 minute

8. Download an app

The main hub for downloading new apps onto your device is the Play Store app within your app drawer. Once you open up the app you'll be able to explore the thousands of apps on offer for you to download. Some of them are free, and some of them aren't. Once you've found an app you want to download, open up the page and press the download button, or the buy button, if required.

Difficulty rating: 2 **Time taken:** 5 minutes

9. Add your payment details

Google offers a secure system that you can store your credit card information on. It is absolutely imperative to set up if you want to download apps that aren't free, as this is the way to purchase any of the apps that you want. Open up the Google Play store app and go to an app that requires you to pay for it. Once you press the buy button, you'll be taken to a screen where you can add your payment information.

Difficulty rating: 2 **Time taken:** 10 minutes

10. Get snap happy and take a picture

Plenty of Android devices have excellent cameras, especially those on some of the newer devices. Open up your app drawer and go to the Camera app. Your camera will automatically open and you'll be able to start instantly snapping away. Every picture you then subsequently take will be saved within the Gallery app on your device, and can be used with other apps later.

Difficulty rating: 1 **Time taken:** 2 minutes

Top 10 tips for

Social Networking

Stay connected with this must-have knowledge, essential for keeping in touch and getting your voice heard

There are plenty of ways you can stay connected with your friends and family. Obviously we're still able to communicate via phone calls and text messaging, but the sheer rise of social media apps means staying connected using virtual profiles is also a great option. Not only do they have the advantage of amalgamating all your digital content – all your pictures, posts and shared articles – in a single, easily accessible place, but they often offer great instant messaging services for free. These days, it's not just about Twitter and Facebook, either: head over to pages 38-41 to check out our full guide to the new social networks.

"Staying connected using virtual profiles is a great option"

One of the truly great things about the direction social media has taken on mobile platforms is that integration is becoming more and more important with each new innovation. From blogging sites to snap-sharing services, developers are linking their apps together to make it easier for you to use your existing profiles to create new ones. Here we run through ten tips that'll make your social media and sharing experience that little bit easier.

1. Sync your Facebook account

Open up the app drawer on your device and navigate to the Settings app. Scroll down the list of settings until you reach the accounts tab and press on your Facebook account that's listed. You'll now be able to change how you sync your Facebook account, and how often the app updates. Bear in mind every update Facebook does drains your battery life a little faster.

Difficulty rating: 2 **Time taken:** 10 minutes

2. Upload files easily

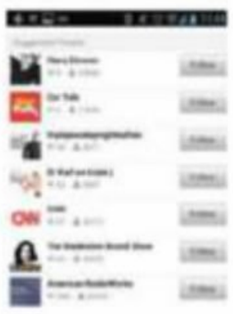
Whether you take a photo, or record a new video, by accessing the Gallery app on your device, you can quickly share your newly taken file directly on to your Facebook or Twitter page. Open up the file within Gallery and press the share button at the top of the app. Choose either Twitter or Facebook from the list and simply wait for the file to upload. It's an incredibly simple method of updating your social media in a more interactive way.

Difficulty rating: 1 **Time taken:** 5 minutes

3. Discover something new

Luckily for Android users, the sheer choice of apps that are available from the Google Play is pretty amazing. Not only are they just really varied – and you can spend hours going through them! – but you'll find plenty of alternative social media sites that you might want to take a look at. Apps like Pinterest take a little time to get used to, and are quite fiddly to sync with your device, but ultimately offer a rather unique social media experience for you to try out.

Difficulty rating: 3 **Time taken:** 15 minutes



4. Get your voice heard

If you're a wannabe singing sensation, then you can take advantage of social media sites to showcase your voice. First download the SoundCloud app from the Play Store, and begin testing how your voice sounds through the app. You can then record full songs, which in turn will upload directly to your social media account or Tumblr blog.

Difficulty rating: 3 **Time taken:** 35 minutes

5. Showcase edited photos

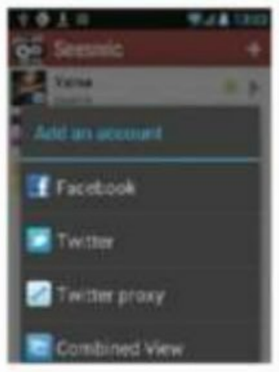
First download Instagram from the Play Store, and start exploring the various effects you can add to your photos. From the app's home screen, press the Create Profile button and enable the full sync option near the bottom. Every photo you now take will automatically be shared to Instagram where you can edit it to your heart's content, and then share it again on Facebook or Twitter.

Difficulty rating: 2 **Time taken:** 10 minutes

6. Add locations to your posts

Open up your device's settings menu and go to the Locations tab. From here you'll need to look for the Enable GPS feature which should be ticked. While using Facebook and Twitter, you can now personalise every post you make by adding your location to them, which your phone tracks automatically. Some devices might need a third party app to enable the GPS on their device, however.

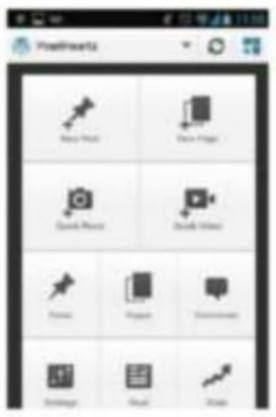
Difficulty rating: 4 **Time taken:** 5 minutes



7. Blog from anywhere

In a similar way to how cloud storage apps work, you'll find that most of the blogging apps that are available for Android users can be synced over many different devices. For example, downloading the Wordpress app and accessing your blog through it means that any post you then create within the app can be edited and published on your desktop computer or tablet device.

Difficulty rating: 1 **Time taken:** 10 minutes



8. Take advantage of shortcuts

Third party social media clients, such as Seesmic, can add quick shortcuts to your home screen that will make accessing your various profiles a whole lot quicker. With the Seesmic app open, press on the Facebook page, and choose the Add to Homescreen option. You can then select which of your device's home screens you want the shortcut added to.

Difficulty rating: 2 **Time taken:** 10 minutes

9. Create a new account

Open up the Settings app on your device and navigate to the accounts tab. Although you'll see a host of accounts you're currently linked up to, you may also see a few social media sites you're yet to sign up to. If this is the case, simply press on one of the apps in question, and follow the sign-up process. If the app is already listed in your accounts tab, it'll automatically start syncing to your device.

Difficulty rating: 1 **Time taken:** 5 minutes

10. Alternative blogging

It isn't all about long passages of text and the odd photo when it comes to blogging on your device. A new wave of Android apps have recently come on to the Play Store allow you to create video and voice blogs. Some of the apps we recommend if you want to try them out are VocalPost and Moby. Both apps are free and offer a unique take on blogging techniques that are sure to give a new twist to the blogging scene.

Difficulty rating: 2 **Time taken:** 5 minutes

Top 10 tips for

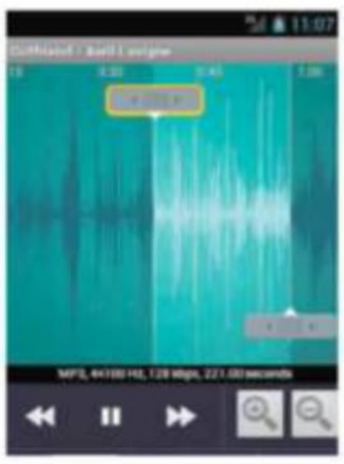
Creativity

Unleash your inner artist by following our ten essential tips, great for budding creatives and established virtuosos alike

Past the simple editing that you can find in Instagram, a lot of Android users aren't really tuned into the level of creativity that can be achieved using their Android device. Holiday pics can not only be improved with effects, but they can be used to create wallpapers and collages. Video clips can be turned into mini blockbuster-style movies, and you can even record and publish your own music, all from your Android phone or tablet.

Not only that, but Android is purposely designed to be tweaked and modified to your heart's content. You can get creative and customise almost every aspect of your device straight off the bat, and you can customise the rest once you've rooted it (see the Hacks section for step-by-step guides).

For people who love to create and edit their files, or for people who want to try something new, we've put together a list of tips that will help not only showcase your creative side, but also show you a whole new set of apps that you probably haven't seen before.



1. Create a ringtone

One of the simpler ways to showcase your creative side is by producing a fairly simple ringtone. Download the Ringtone Maker app from the Play Store and follow its tutorial, before putting together a mix of sounds and saving your ringtone. It's so easy to get to grips with, and you can create something totally unique that no-one else will have. By then going to the ringtone page in your call settings, you can then choose your created tune and set it as the default tone.

Difficulty rating: 2 **Time taken:** 20 minutes

2. Take a panoramic shot

One of the features that can be found in the camera app is the panoramic shot mode. These shots add more perspective to your photos and create a 3D-esque style of view. To activate this mode, open up the Camera app from your app drawer and select the icon underneath the video camera on the right hand side. Photos take a few seconds to load with this mode.

Difficulty rating: 1 **Time taken:** 1 minute

3. Install an alternate launcher

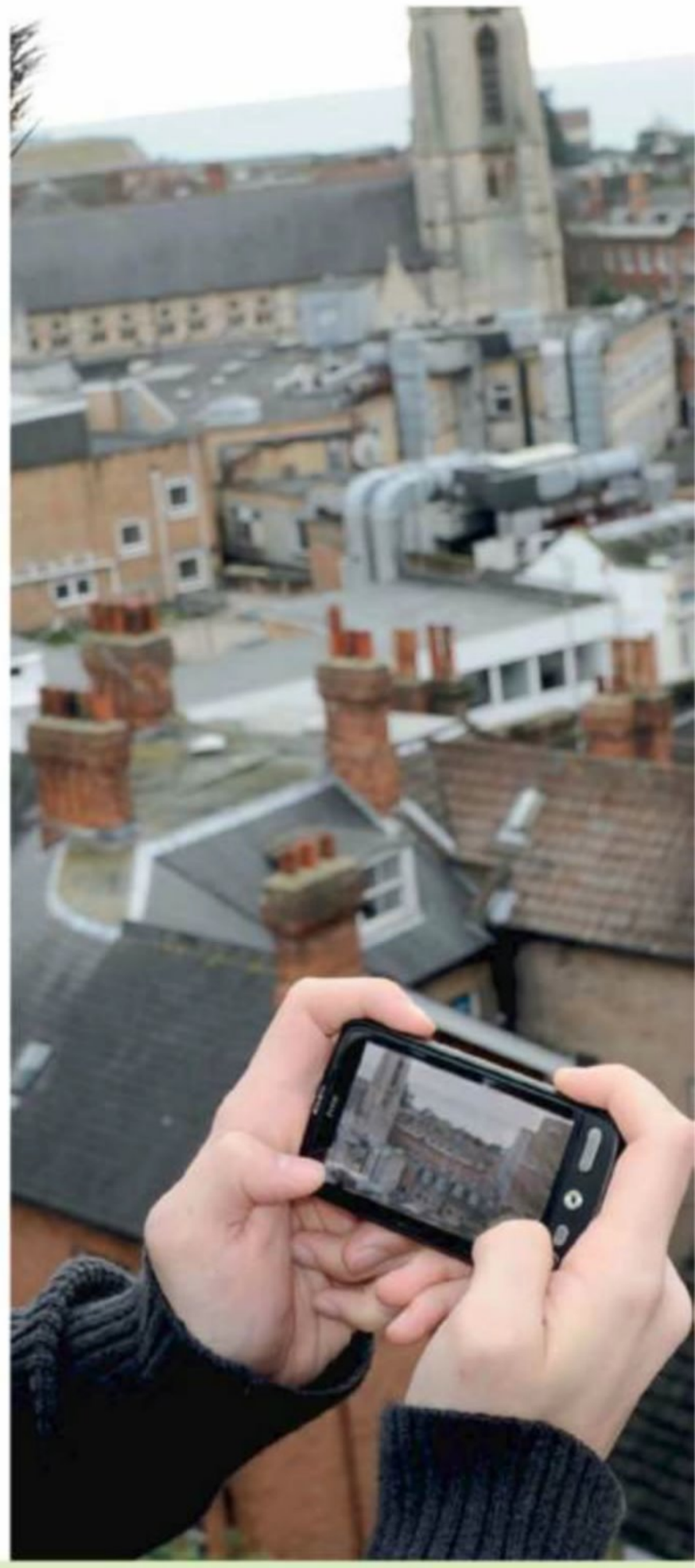
One of the best ways to get creative on your Android device is by installing a completely new launcher. Adding one of these alternate launchers means you'll be able to customise each and every aspect of how your phone performs and looks. The best apps to try out are Nova and Go Launcher, though both are very menu-heavy.

Difficulty rating: 4 **Time taken:** 30 minutes

4. Make your own wallpaper

If you've plenty of images stored on your device, you may consider grouping some of them together to create your own wallpaper. First download the Wallpaper Maker app from the Play Store, and select one of the templates it provides in the style of the wallpaper you want to create. Once you've added some of your images, you can then save and install the creation on your device.

Difficulty rating: 2 **Time taken:** 15 minutes



5. Perform desktop quality image editing

Photoshop Express is the premier editing app available for Android users, and with it you'll find a large portion of the same editing features that are available within the full desktop version. You can create some brilliant graphics within the app, and even export them onto the desktop version to finalise. It's a very, very hard app to master, but well worth the time and effort you put into it.

Difficulty rating: 5 **Time taken:** 1 hour

6. Publish a movie

By either using the stock movie editor app, or by downloading a third-party editor, it's surprisingly pretty easy to add titles and credits to one of your videos to create your own little movie. Within the stock movie editor, you can access the titles and credits feature with the FX page. Once your creation is finished, you can publish your movie onto Facebook. Fantastic for budding film-makers on the go.

Difficulty rating: 1 **Time taken:** 5 minutes

7. Turn your phone into a recording studio

If you're looking for a cost-effective way to showcase your band's talent, then you should invest in the PocketBand app. Not only can you record your entire band in action, you can also use the excellent editing features to help give you the best possible sound. Sync the app with SoundCloud to showcase your talent to millions of people all over the world.

Difficulty rating: 3 **Time taken:** 40 minutes

8. Create a collage

For the artistic types amongst you, why not take a look at creating your own collage of images? Download the Photo Grid app and start your collage by selecting every image you want to use that is stored on your device. Next, drag each image into the location you want to place it, and edit the lighting and composition of them if it seems necessary. Each collage can then be saved and shared to other devices or onto your desktop computer where you can print it out.

Difficulty rating: 2 **Time taken:** 30 minutes

9. Add a new font

If the default font that is used on your Android device doesn't exactly take your fancy, then by installing an alternate launcher, you can also add a new font to tryout. After installing a new launcher, download the Font SMS app and just take a look at the variety of fonts you can use alongside your new launcher. Any app that lets you use the *Lord Of The Rings* font is a winner in our book, but there's a real range of fonts to choose from.

Difficulty rating: 3 **Time taken:** 15 minutes

10. Create Hollywood-style FX

The ultimate way to showcase your creative side on your Android phone is to add some amazing special effects to whatever you shoot with your device. The Ultimate Special FX app includes lots of amazing 3D effects that you can place throughout your video. Difficult to get used to at first, but if you're a budding Michael Bay, then you might just want to give it a shot!

Difficulty rating: 5 **Time taken:** 1 hour +

"Android devices are now truly media powerhouses"

Top 10 tips for

Entertainment

Get the best streaming and downloading experience from your Android device

Recent updates to the Android OS mean that our devices are now truly media powerhouses, offering users the ability to stream, download and listen to the latest media files without the hassle of connecting to a desktop computer. With such amazing features at our fingertips, people who are keen to get all this content have plenty to explore.

There is the ever-growing Google Play store, for a start, where the range of apps, books, music, TV series and movies available to download is becoming formidable, not to mention the many third-party services out there. You can even stream full-sized console games directly to your handset, or download an app which turns your Android device into a remote control that you can use with tablets, desktops and even smart TVs.

Here are ten tips to make things a little easier for content hoarders.

1. Download some literary treats

The Play Books app on your device makes for a fantastic eReader, allowing you to browse through some of your favourite novels on your fingertips. The Play Books app also gives you access to thousands of books, fiction and non-fiction, available at fairly decent prices. Downloaded books are then added to your phone automatically for you to access.

Difficulty rating: 2 **Time taken:** 15 minutes

2. Rent the latest movies

Similar to Play Books, Google have done a great job in providing a reliable movie renting service for you to enjoy, great for travelling long distances. Entitled Play Movies, users can rent many of the latest movies to be released as well as some B-movie classics. You can watch the film you rent as many times as you want over a 24 hour period. Each movie you rent can be watched within a third-party video player.

Difficulty rating: 1 **Time taken:** 10 minutes

3. Take advantage of cloud gaming

OnLive is a unique cloud storage system that includes console games that can be played on your Android phone. The app is a free download from the Play Store, but requires payment for each individual game. There are plenty of settings you can customise, and adding a third party controller makes it even more authentic.

Difficulty rating: 3 **Time taken:** 10 minutes

4. Turn your phone into a TV remote

Thanks to many third-party apps, such as VIERA Remote, you can now turn your Android device into a fully featured TV remote. Using the DLNA technology based on your phone, you can create a connection between your device and your TV, Hi-Fi and games console, and begin controlling it all from one device. Most remote apps are free to download from the Play Store.

Difficulty rating: 3 **Time taken:** 15 minutes

5. Create a music playlist

Download the Spotify app from the Play Store, and sign up to the reasonably priced streaming service. If you've already created an account of your desktop computer, you can access it through this app, but if not you'll have to create an entirely new one. You can now go through the huge music catalogue and create playlists to listen to at your own leisure.

Difficulty rating: 2 **Time taken:** 10 minutes

6. Stream your very own podcast

Thanks to the sheer volume of apps on the Play Store, you can now even find apps that allow to create your very own podcast, allowing you to live stream it all over the world. A good way to get your voice heard, simply download the Spreaker app from the Play Store, and once opened press the Create option from the home screen. Enter your podcast's details and begin streaming live to the world. Once you're done press the stop button and Spreaker will save your podcast as a new episode.

Difficulty rating: 4 **Time taken:** 45 minutes

7. Marvel at your comics

Nothing beats reading through the latest Marvel or DC comic, and thankfully, both have fantastic apps on the Play Store that do justice to the colourful pieces of work. Really useful for quick journeys, or to briefly catch up with whatever comics or graphic novels you read. You can also download a third party comic viewer that'll allow you to tinker with the layout of the comics, and also enable you to share them amongst a variety of platforms.

Difficulty rating: 2 **Time taken:** 10 minutes

8. Connect to your favourite TV shows

If you want to stay up to date with your favourite TV shows, you might want to take a look at some of the second screen apps on the Play Store. Apps like GetGlue include content that others have uploaded on their favourite TV shows, as well as the latest Twitter discussions on some of the more popular TV shows being shown at the moment. You can also create your own content and add it to these apps.

Difficulty rating: 2 **Time taken:** 5 minutes

9. Only stream over WiFi

If you want to keep your data usage under control, make sure you set your phone to stream only over Wi-Fi. Open up the Play Movies app and go to the options located on the top right of the app. From here, you can select to change the way you stream your movies, including the ability to stream everything only over a secure Wi-Fi connection. Streaming over 3G may be handy when you're nowhere near a hotspot, but it'll quickly drain your data.

Difficulty rating: 1 **Time taken:** 2 minutes

10. Get quick access to your radio streams

If you're streaming your favourite radio station and have the new Jelly Bean update, you can get quick access to whatever station you want without needing to open up the app from the drawer, by pulling down your phone's notification bar and selecting it from the menu. Similarly, most radio apps also come with widgets that you can add to your screen, to get quick access to the app, so you're always just a quick click away from your favourite music and DJs!

Difficulty rating: 1 **Time taken:** 1 minute

Top 10 tips for

Productivity

Essential tips and tricks for those who like to keep themselves organised and use apps effectively

Productivity apps are pretty common on the Google Play store, and all of them can help you to manage your daily life. If you want to use your phone as a way of managing every aspect of your life, you can benefit from streamlining your phone's performance. With just a little navigation through some menus, you'll be able to uncover some great little features that are tucked away inside your device.

"Productivity apps can help you to manage your life"

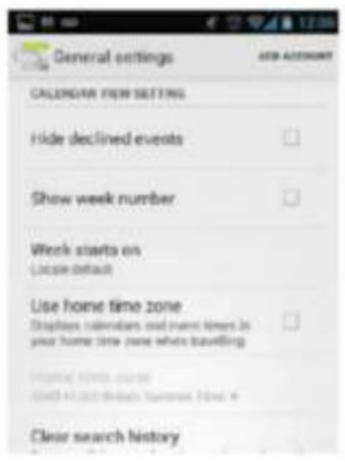
Most productivity apps will, for example, support syncing and linking with other apps; Google Calendar works with many of the popular calendar apps and allows you to create a central 'hub' of events and appointments with a few taps. It's also the smaller things, like installing a keyboard that suits your typing style or learning how to save certain things offline so you can still access them when not connected to the web, that really do make all the difference.

Here are a few tips and tricks to help make managing your life a little bit easier.

1. Make use of widgets

Many of the note-taking apps, such as Evernote, come with a series of widgets that can be added to your home screens to notify you of any immediate tasks that you need to complete. They come in a variety of shapes and sizes, and creating a note and adding it as a widget takes all but a minute to complete.

Difficulty rating: 1 **Time taken:** 1 minute



2. Integrate your calendars

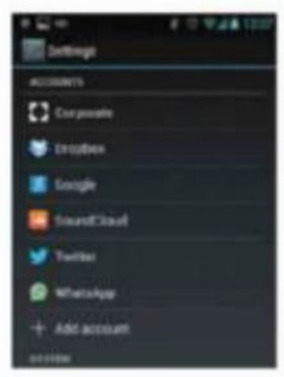
If you're using several different calendar apps, your phone will be cluttered with constant notifications from different places. To help streamline this, go into your favourite calendar app and access the settings. Within it, you should find an option that'll allow you to integrate the entries from other calendar apps into a single one, making it much easier to manage.

Difficulty rating: 1 **Time taken:** 1 minute

3. Back up your files

If you keep lots of work files on your phone, it's well advised to create back-ups of them, just in case you accidentally lose or delete them. A great app to complete this with is ASTRO File Manager. As its name suggests, ASTRO is predominantly a file management app, but also includes a back-up system that'll create a copy of all the files and other essential data stored on your device.

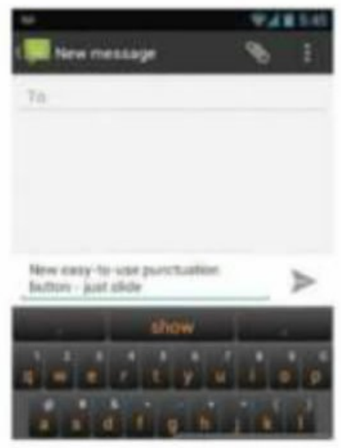
Difficulty rating: 3 **Time taken:** 40 minutes



4. Manage mass accounts

As you start signing up for more and more apps and sites, and also when you start incorporating some of the social media sites that you've joined, your list of accounts will become a little more difficult to keep track of. By going to the accounts tab within the Settings app you can access each of your accounts, remove them or even add a new account to the service.

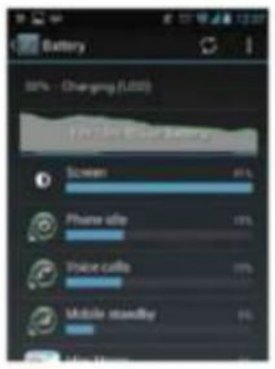
Difficulty rating: 1 **Time taken:** 5 minutes



5. Install a third-party keyboard

Depending on your typing style and speed, the default keyboard on your Android phone might not be up to scratch. After you download a replacement from the Play Store, you can install it by going to the Language and Input menu in your settings and enabling it from the choice of keyboards provided. Go to your SMS screen and type a message to make sure it has installed properly.

Difficulty rating: 2 **Time taken:** 5 minutes



6. Track battery usage

If you use your phone as a companion to your desktop computer, chances are you'll drain the battery pretty quickly. To keep track of your battery usage, and in turn, monitor how much battery your device has left, simply go into the battery settings within the Settings area on your device. In this section, you'll be able to see exactly which are the apps that are using the most battery power, and have the chance to close them if needed.

Difficulty rating: 1 **Time taken:** 1 minute

7. Text-to-speech editing

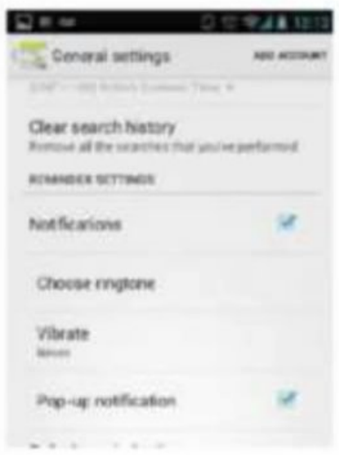
If typing isn't your thing, why not take advantage of your device's microphone and speak into it to type messages and such? Depending on your device, this feature can be a bit hit and miss at times, but once you've tinkered with the Text-to-Speech settings you'll never need to use your fingers to type out a message again. This is one of those aspects of your Android device where the more you use it, the easier it will be for you to use it fluidly.

Difficulty rating: 3 **Time taken:** 10 minutes

8. Save as PDF

When you're browsing the web, you might come across a passage of text, or a webpage that you want to permanently save on your device. Open up the options button on your browser and go to the Save for offline reading option. This will create a permanent file of the webpage that you'll then be able to take a look at a later, whenever it is the most convenient for you. The file is also transferable between different devices, using one of the apps that are available.

Difficulty rating: 1 **Time taken:** 2 minutes



9. Get daily reminders

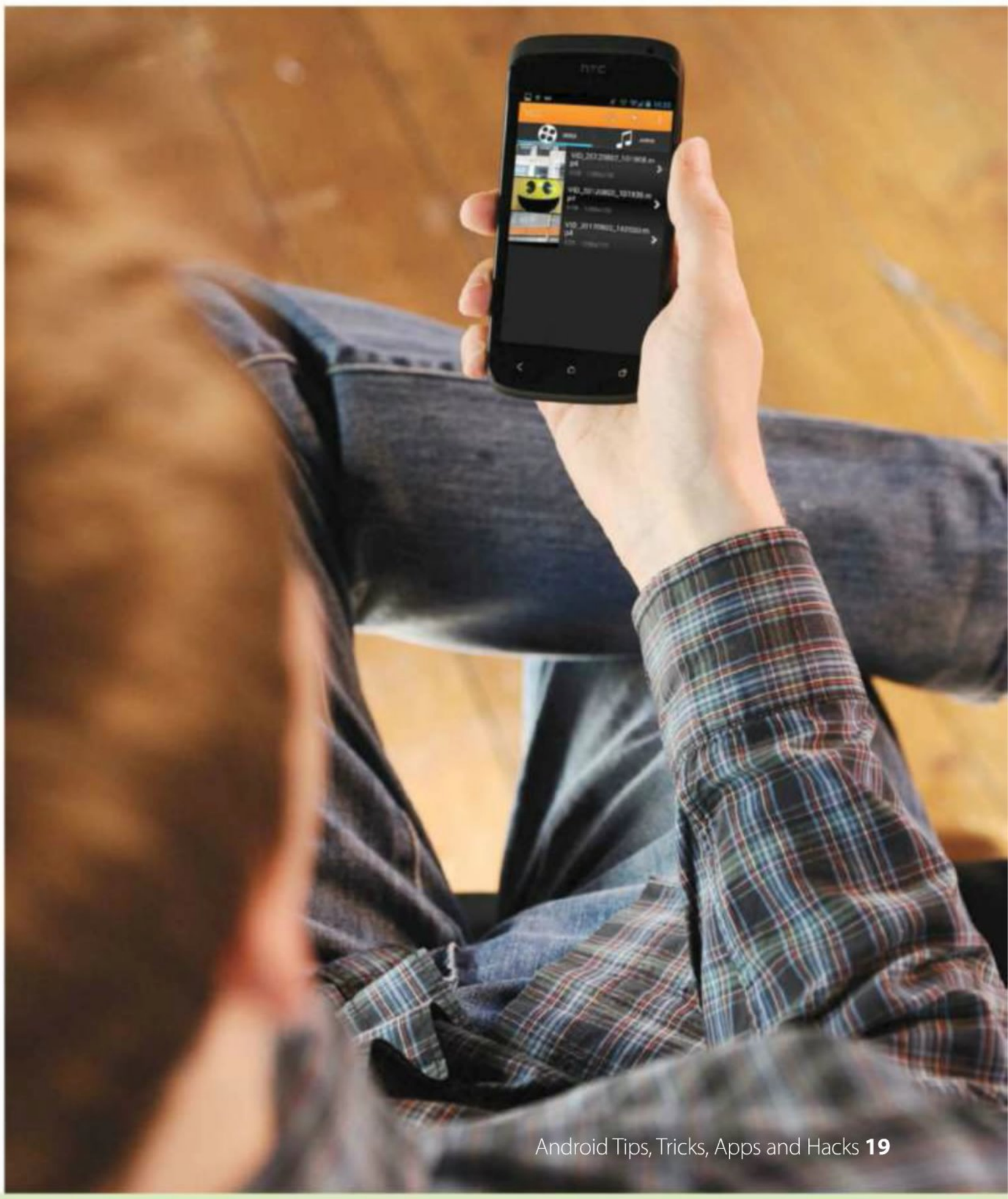
Returning to the incredibly usefulness of calendars again, you can use the Google Calendar app to create a daily notification system that will alert you of daily events every morning. Simply open up the options menu in Google Calendar to set the kind of notifications it sends you every morning, as well as how you want them presented. You can even give each kind of notification a different sound if you would like to differentiate between them.

Difficulty rating: 3 **Time taken:** 10 minutes

10. Screen capture

Another way of quickly storing passages of text for future reference is by performing a screen capture with your device. This function is accessed in many different ways, and ultimately how you are able to manage it will depend on your individual phone model. In most cases you'll find that pressing down on the volume rocker and the power button at the same time will take a screenshot.

Difficulty rating: 1 **Time taken:** 1 minute



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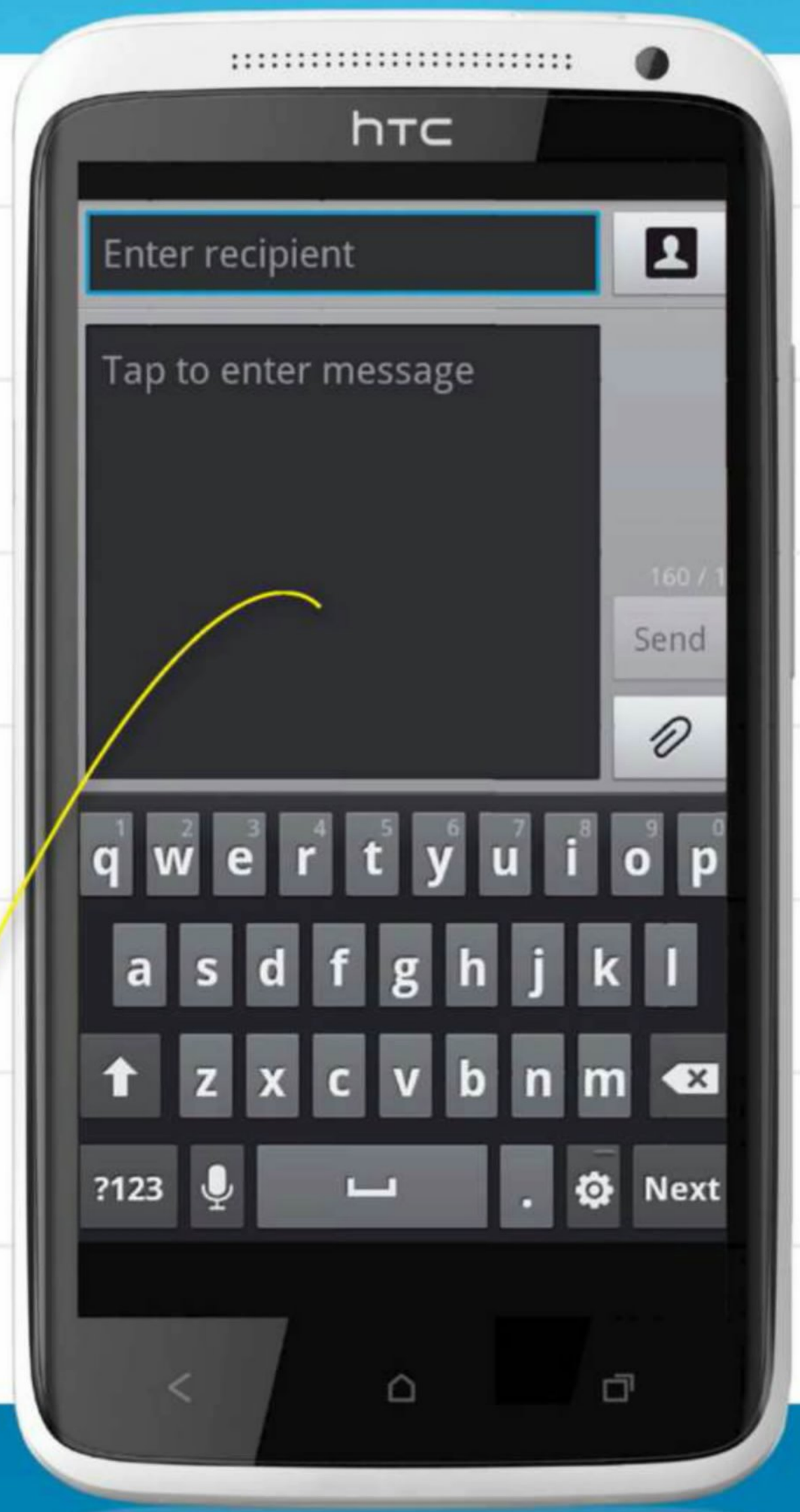

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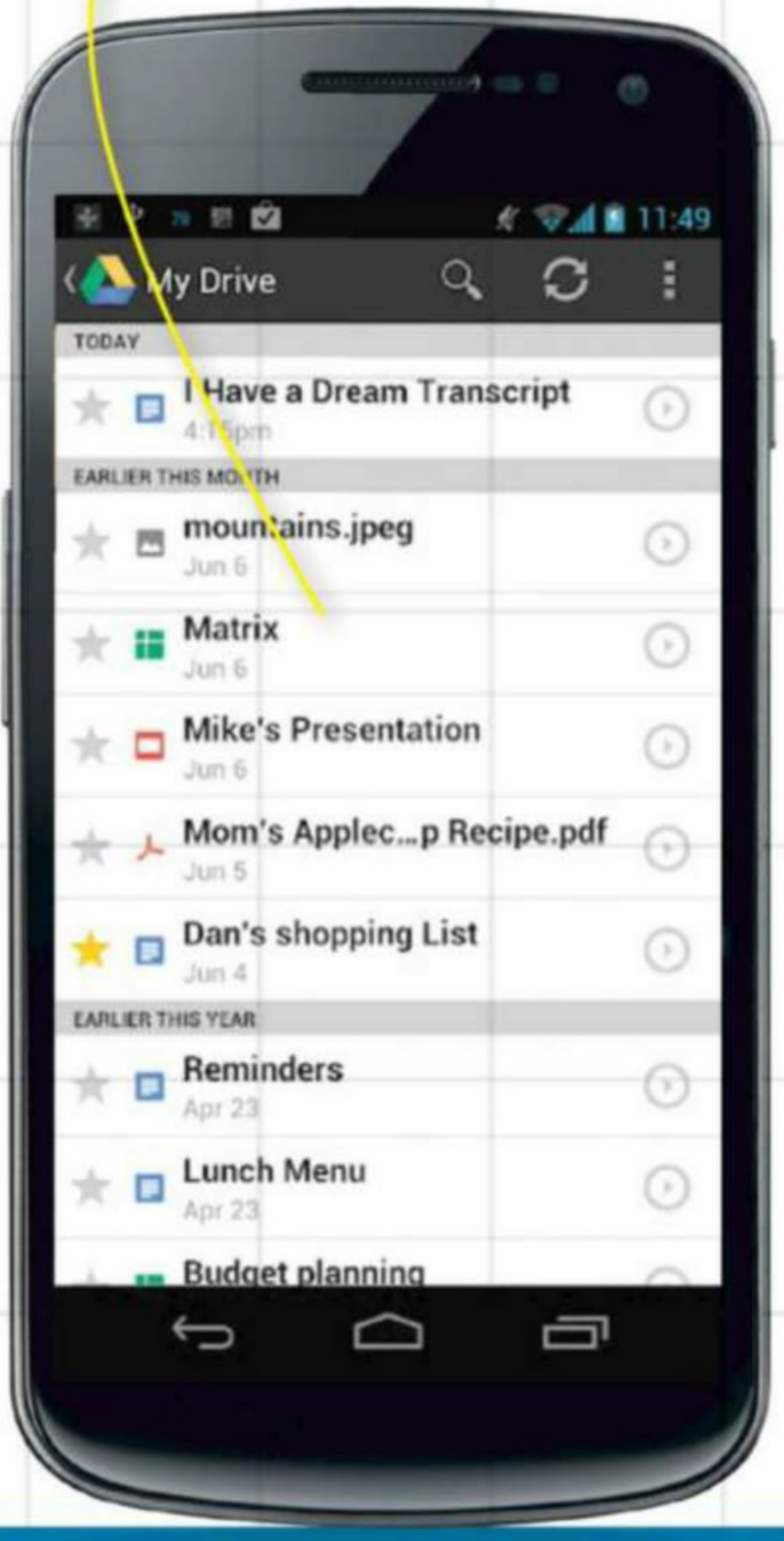


"There is a wealth of native functionality"

Customising

Discover quick and easy ways to personalise your phone

So you've just got a new Android device, right? Then you will have probably just spent the last hour or so pressing the various buttons, exploring the various features and finding out exactly how it works. Well, the next stage is personalising your device and making it your own!

Android devices are very flexible in terms of what you can add and how you make them look. For example, you can change the ringtone to something that reflects your personality – it could be a tone from the existing database of pre-installed tones or you can look into creating your own from your favourite song.

You will probably then want to start altering the appearance of your device, which is where the possibilities really start to come thick and fast. The most obvious way to customise the appearance of your phone is through your wallpaper. Again, your device will come with a wide-range of pre-installed backdrops that include static images and dynamic, animated themes.

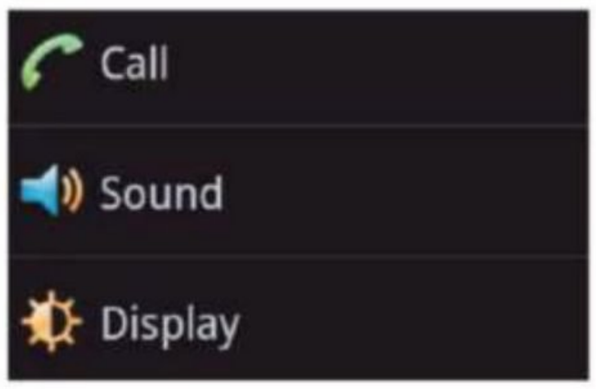
If none of those float your boat then you can use an image that you have captured using your phone's camera – all that is required is the selection of the image and a minor amount of resizing to ensure that it fits within the screen constraints of your device.

Then we move on to app launchers and widgets. An app launcher is a kind of mini operating system that determines how your apps are displayed and where they are placed for easy access. There are numerous app launchers available to download for free through the Google Play store, and they provide quick and easy access to the apps that you use the most while allowing you to organise and arrange the rest of your apps any way you see fit.

Widgets are a different bag altogether. Basically, a widget is a cool feature that you can assign to your home screen – kind of like an app that is running constantly, such as a clock, weather report or stock checker – so you can fill your various home screens with information that is important to you. Widgets require varying amounts of space on your home screen, so a slight amount of organisation may be required.

In this section we will guide you through the process of utilising all of these features and also provide further insight into additional ways to personalise your phone, such as keyboard shortcuts and adding to your phone's vocabulary with your own most-used words which, judging by modern phone-speak, may or may not be in the English dictionary!

Changing your ringtone | How to set new ringtones and adjust the volume



Go to Settings

On your device, locate the Settings app and then tap on it. Listed in the extensive list of options will be one called 'Sound'. Just tap on this to start exploring the audio options for your device.

Change the tone

Sounds can be applied to ringtones, notifications and more. Tap on the 'Phone ringtone' option under the 'Incoming Calls' section, and then choose a new ringtone from the listed of installed tones.

Change the volume

Now tap the 'Volume' control option, and here you will be able to adjust the volume for each and every tone that you have set to a specific function. Move the sliders and then tap on 'OK' to finish up.

How can I add a bookmark shortcut to my Home screen?

Simply tap on your home screen, select the 'Shortcuts' menu and then choose 'Bookmarks'. Now select the page you wish to add.

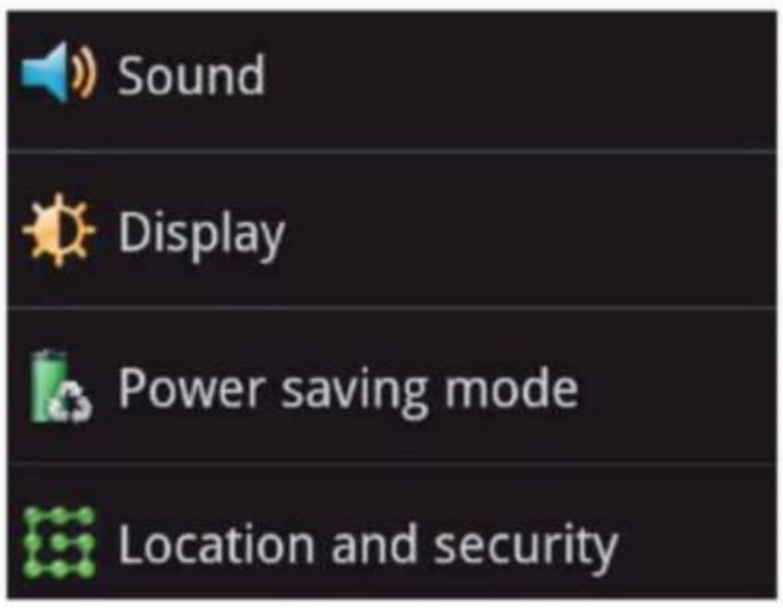
Time needed: 5 minutes **Difficulty:** Beginner

Changing the background

How to instantly change the whole appearance of your phone

Changing the wallpaper on your phone is probably the most direct method of personalising your device. Most phones come preloaded with a wide range of wallpapers, both animated and static, that you can set to form attractive backdrops to the home and lock screens for your device. But don't forget that you can also use pictures that you have taken on your phone or images that you have downloaded from the internet. In this tutorial we'll show you how!

Add wallpaper | Give your home screen a new look

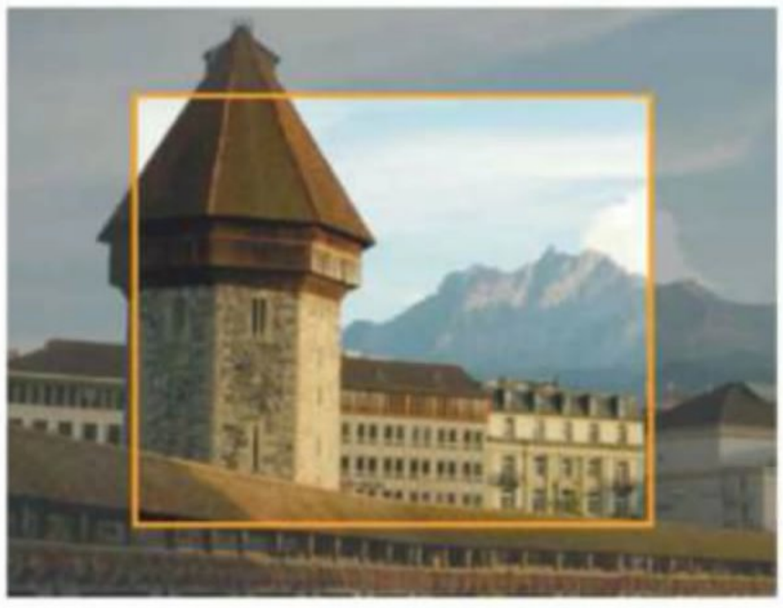


1: Go to Settings

On your device, locate the Settings app and give it a tap. Listed amongst the extensive list of options available here will be one called 'Display', which has a little sun symbol. Simply tap on this to start exploring the incredibly varied visual options that are available for your device.

2: Tap on Screen Display

Tap on the 'Screen Display' option and you will see options for your home and lock screens. Tap on the home screen option and you will be able to select wallpaper from your photo gallery, select a live wallpaper or choose an existing wallpaper from those on your phone.



3: Choosing your own pictures

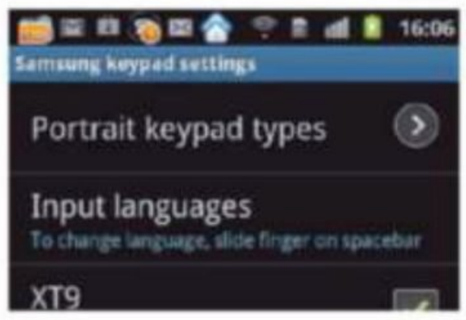
If you wish to use one of the photos that you have already taken on your phone as a wallpaper, then choose the 'Gallery' option and just navigate through to the image that you want to use. Once selected, move the orange guide around to resize the image to exactly what you want.

4: Choosing other wallpapers

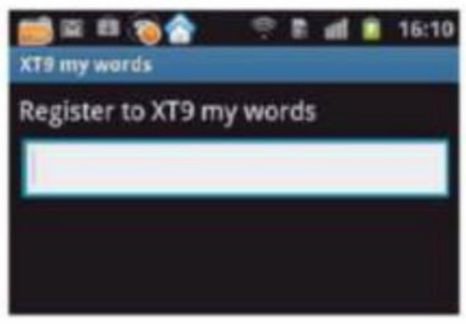
Your phone should also come preloaded with 'live' wallpapers, which are fully animated, and give a bit of life to your phone. There will also be a selection of attractive backgrounds that have already been resized to fit your screen. Simply pick one from the respective gallery and then choose 'Set wallpaper'.

Using keyboard shortcuts

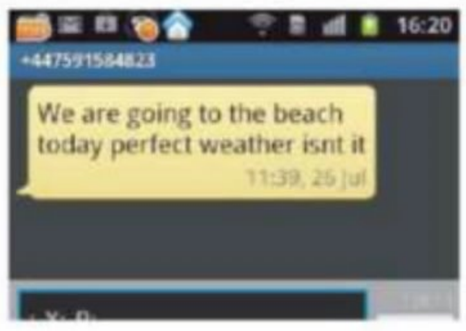
Discover just how you can speed up your typing



Access your Settings app and you will find a 'Language and keyboard' option. Once there, select the settings that relate to your preferred keyboard. Here you may wish to activate predictive text to make typing faster.



You can add your own words to your phone's dictionary. Under 'Advanced Settings', tap on the 'My words' option and then input the words that you would like to add.



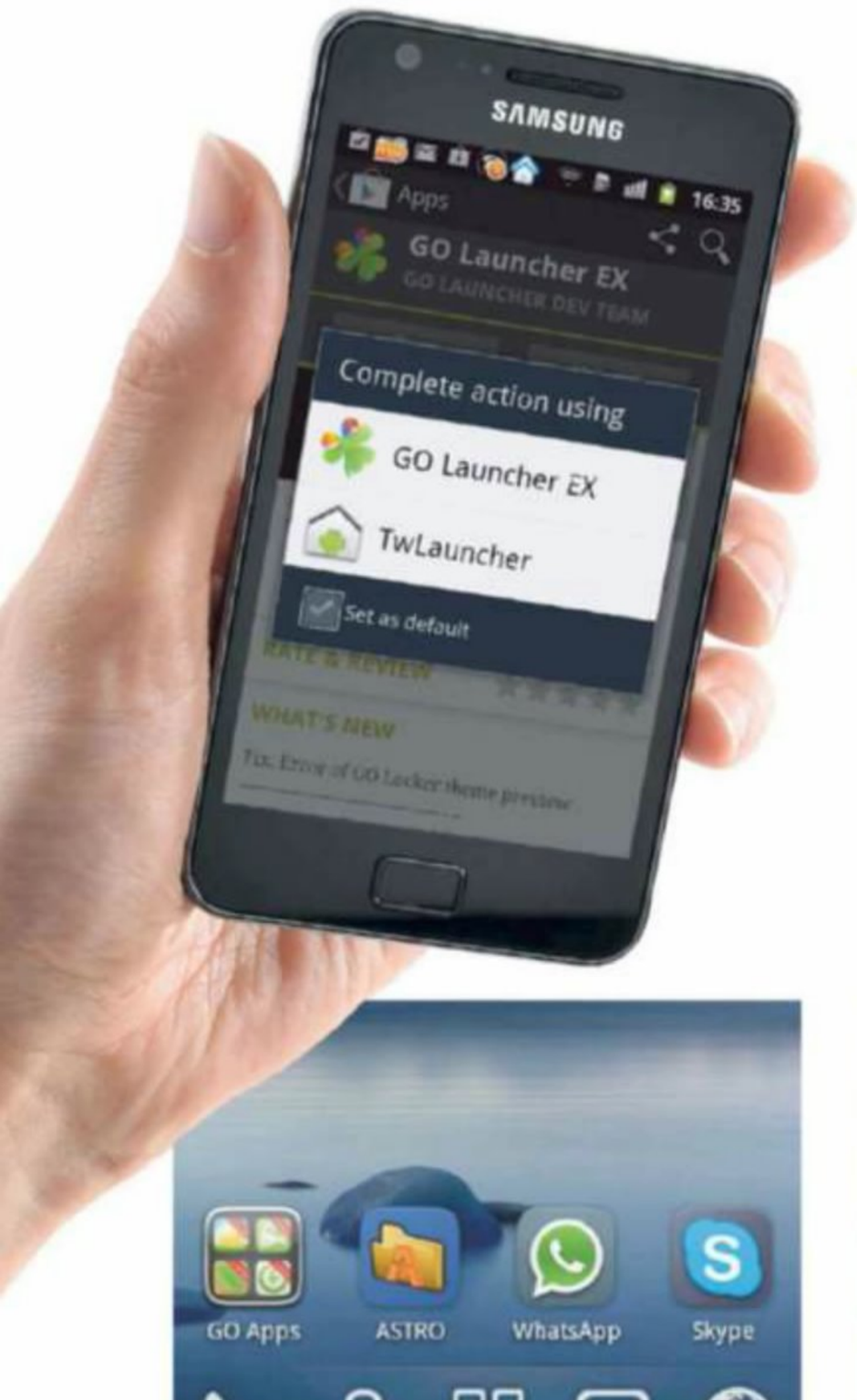
There are plenty of shortcuts built into your phone's keyboard to help save you time. For example, hold the 'E' key to access accented 'e's, and hold the full stop key to access a range of emotives.

App used: GO Launcher EX **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

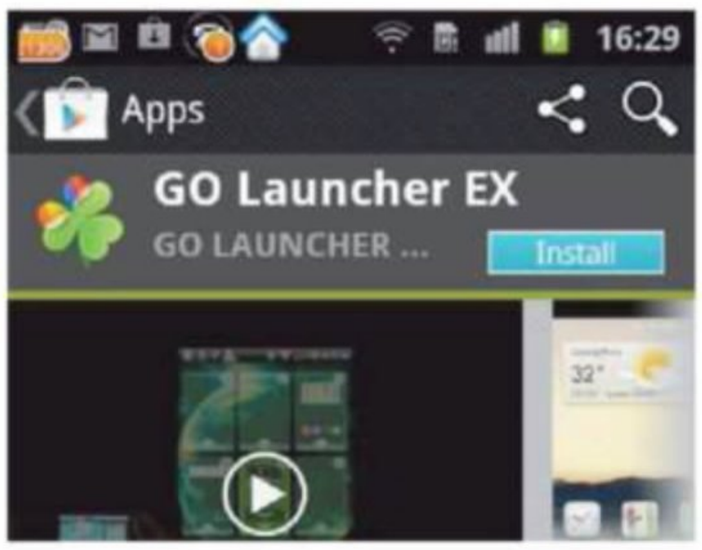
Personalising your home screen

Get a funky new look and added functionality for your phone by installing an app launcher

Aside from changing the wallpaper of your phone, another great way to dramatically alter the appearance and tailor your device to your own specific needs is through an app launcher. There is a decent selection of these available through the Google Play service, and you download and install them as you would any other app. Once installed, you will then be given the option of switching to the new system, after which you can go about tailoring the appearance and functionality of your machine to suit your needs. What app launchers do is provide a basic operating system, allowing easy access to the apps that you use the most, while allowing you to arrange your other apps exactly the way you want them. So you can place the apps you use frequently on one screen and the lesser-used ones on another, all the while creating new folders for storing them in. For this tutorial we will be using a really good app launcher by the name of GO Launcher EX, which is free to download from the Google Play service.



Tailor your phone | Get a new launcher



1: Download an app launcher

Launch your Google Play app and then browse for app launchers, one we would recommend is called GO Launcher EX, which is what we will be using for the purpose of this tutorial. Download and install this app on your device.

2: Run the launcher

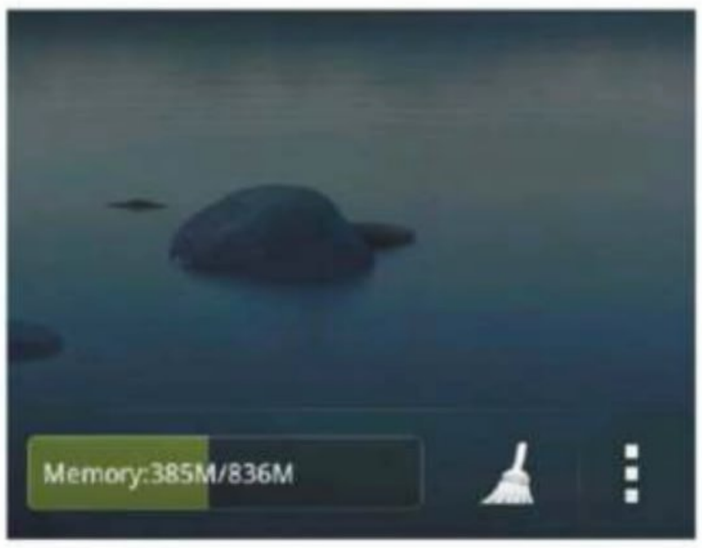
Choose Go Launcher EX as your default and then start using it to customise your home screen. When you first start using the launcher, you will see your home screens at the bottom of the window. Drag app icons onto these screens to tailor your layout.

3: Instant app access

This app launcher conveniently represents all of the services that you use the most as original icons at the bottom of the Home screen, such as phone, contacts, apps, messaging and internet. Tap on an icon to instantly launch the service.

4: Organising your apps

Tap on the app grid icon from the bottom of the home screen and then tap on the dot menu. Here you will be able to organise everything: re-arrange your apps, create new folders and access all of the settings that relate to the app launcher.



5: Check app usage

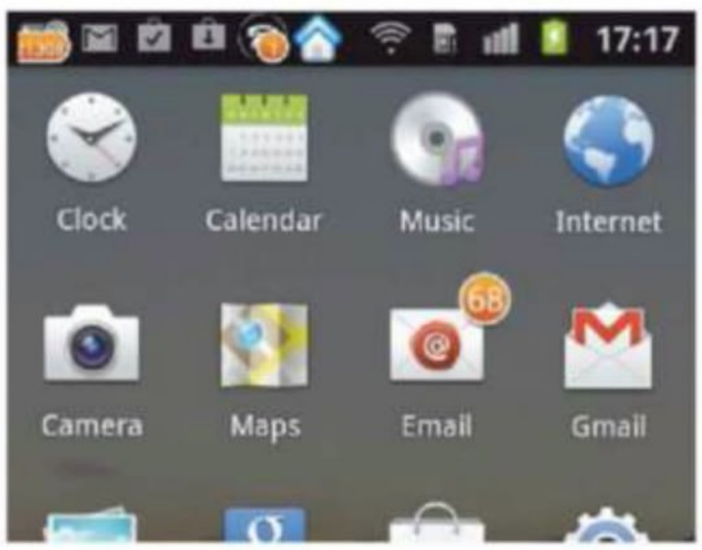
If you tap on the 'Running' icon in the top-right corner of your app grid, then you'll be able to see which apps are currently running and the memory that is being used to power them. You can refresh and lock this selection if you wish.

Time needed: 5 minutes **Difficulty:** Beginner

Home screen shortcuts

Create handy shortcuts to your favourite apps and place them on your Home screen

To get the most out of your phone, you'll want your favourite apps close to hand so that you can launch them quickly and use them whenever you need to. The easiest way to do this is to set up an app shortcut on your home screen so that you don't have to go through the tiresome process of tapping on the 'app drawer' to access your many apps, scrolling through the various pages to find the one that you want and then launching it. By pressing and holding on a particular app, you can create a shortcut to be placed on any home screen you want so that it will be right there whenever you pick up your phone and can thus be launched with a single tap instead of many. Here we show you how to create an app shortcut.

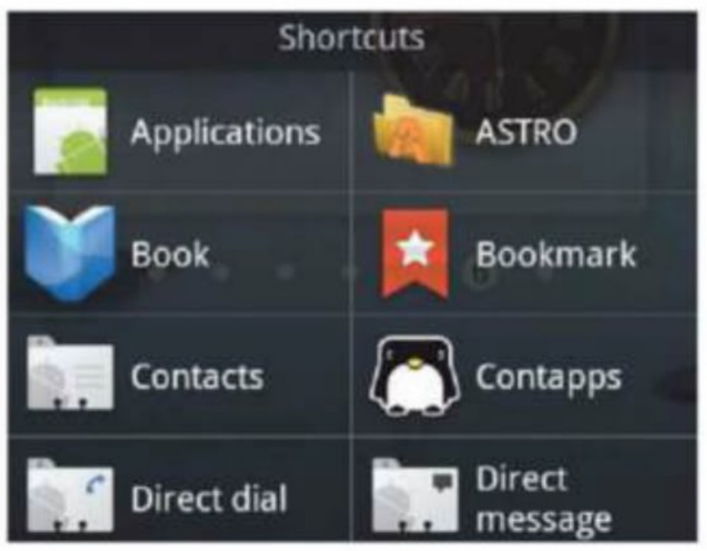


1: Tap on the app drawer

To start adding app shortcuts to your Home screen, simply tap on the 'app drawer' icon to access your apps. Then press and hold on the icon of the app that you wish to add to your home screen.

2: Drag and drop

While pressing and holding on the app icon, you will be taken to the home screen. Drag the icon to the side if you wish to place it on a different home screen and you will instantly scroll to the next one along.

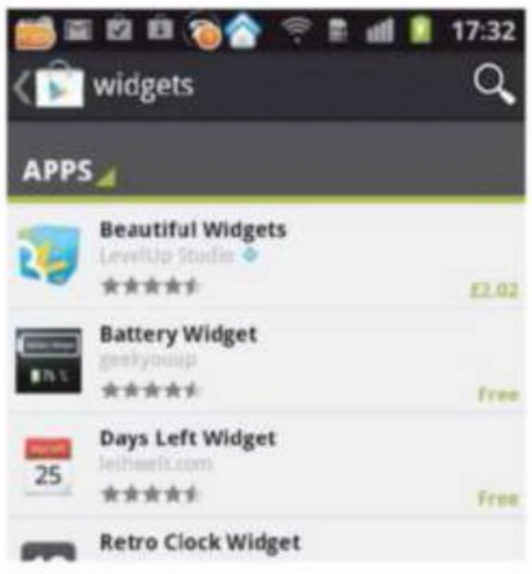


3: Release to set

You can also add bookmarks, contacts and various other shortcuts to your Home screen by pressing and holding on your screen and then choosing the 'Shortcuts' menu. From here, simply select a type of shortcut to add.

Using widgets on your phone

Add cool displays and features to your Home screen with widgets



Entering a simple search for 'Widgets' into the Google Play store will throw up a wealth of possibilities for the many cool features that you can apply to your home screen. Download and install as many as you want. Many widgets are free!

Now scroll through your home screens and then press and hold on the one that you would like to add a widget to. From the menu that appears at the bottom of the screen, select 'Widgets' and then find the one that you would like to add to your home screen.

Some widgets need more space than others, so you'll need to accommodate them accordingly. When you tap on a widget, it will appear on the home screen that you currently have selected. Press and hold on the widget to drag it to a new position on the screen.

When you have finished adding widgets, tap on the main button and the widget will be locked into place. To add more widgets, simply repeat the process and start cramming them into your numerous home screens. A great way to personalise your phone!

Performance

Enhance Android with apps for the best possible experience

Your phone is capable of a lot of things, and with developers and manufacturers consistently looking to push the boundaries of what devices are capable of, new features are being released, and current features are being updated. But all the updates that are pushed out, some mandatory, and some not, may not be to everyone's tastes. Luckily, with the sheer volume of apps available on the Google Play store, you'll be able to find additional enhancements to add or improve something on your device.

Enhancements can vary in size, and in some cases it's the most subtle of apps that bring the most changes. As you find new enhancements that can be added to your device, you'll notice quite a few add something to your home screen, usually in the case of a bar, or a widget.

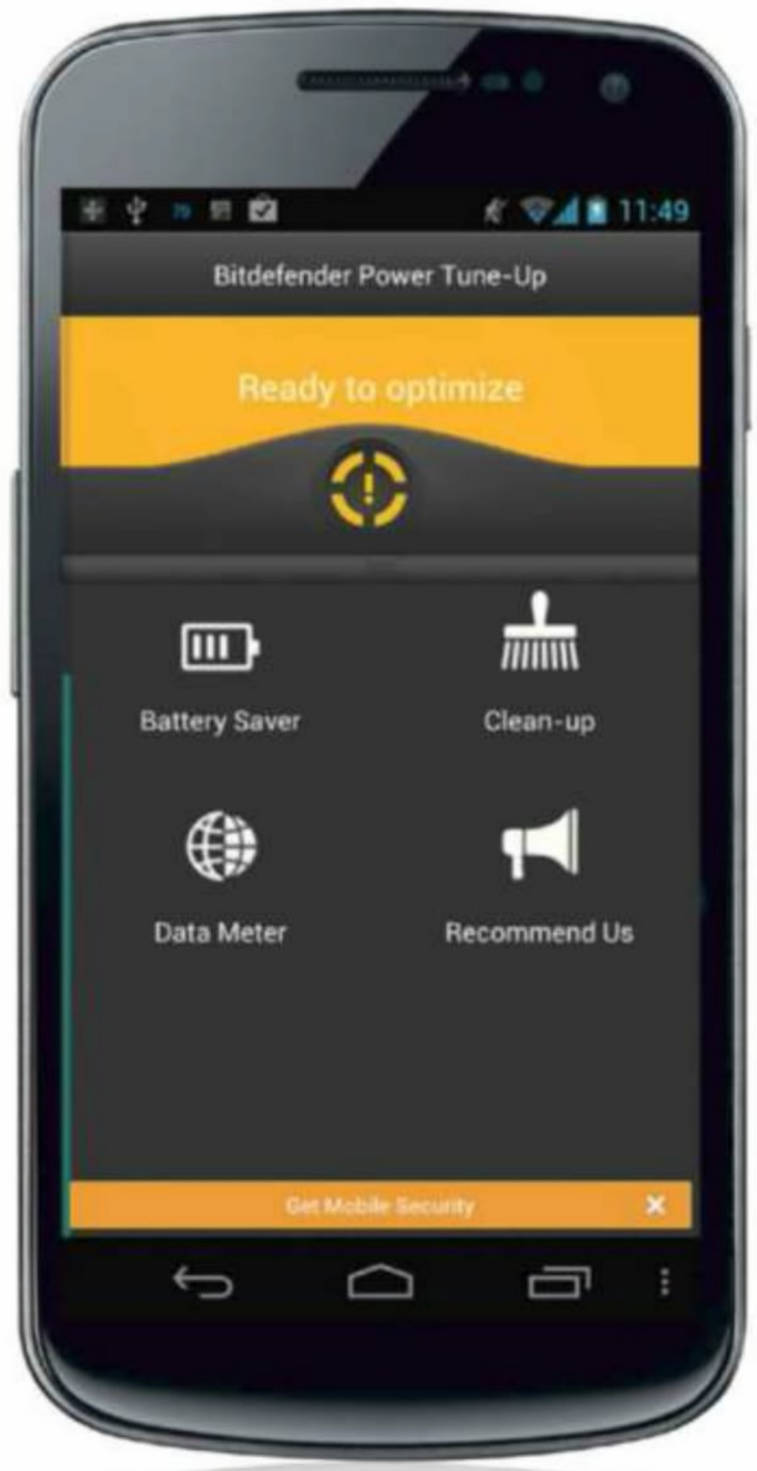
Some are more complicated and require setting up and customising in order to work and function properly. Depending on your device, you'll find some enhancements only work with specific models, so make sure you read up on a potential addition to your phone before downloading and installing it on to your device.

In this series of tutorials, we'll be uncovering some of the small changes you can make to your device to give it something new, as well as some more of the obvious changes if you want to give your device a complete face-lift.

In the first tutorial we'll show you how to go about installing, and using, a new launcher on your phone. We'll then show you how ChargeBar, a simple blue bar that lines the top of your screen, can pinpoint your exact battery life for you, before showing you how to gain instant access to your most prominent settings through one app.

For the audio junkies out there, we'll guide you through Equalizer; an app that will help you revise the current audio levels on your device, while also offering presets to help you listen to your favourite tunes as they should be heard. In the final tutorial we'll guide you through an easy solution to alter the brightness of your device's screen, without needing to file through various settings menus.

Whether the enhancements are big or small, there are plenty out there, and the best way to find them is to get on to the Play store right away. In the mean time, we've given you five of the best enhancements to help you get started on unlocking the true potential of your Android device.



Add some widgets | Install these three home screen widget apps

Beautiful Widgets

With the Beautiful Widgets app you can get access to the biggest selection of widgets on the Play store. From weather to settings widgets, there's plenty of choice and many customisable options.

HD Widgets 3.0

The widgets that are included within HD Widgets 3.0 are of the highest quality, offering usability and design in one package. The app is currently in its beta form, but it should be fully released soon.

Advanced Pro Widgets

Advanced Pro Widgets offer widgets for stock Android apps, like Calendar and Google Reader. There are also new widgets that can be synced with the social network giants Facebook and Twitter.

Can I add enhancements to my rooted device?

Enhancements will mostly rely on OS compatibility rather than device model. Certain apps may not function properly, but you can check their individual pages on the Play store.

App used: Apex Launcher **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Make more room for app icons

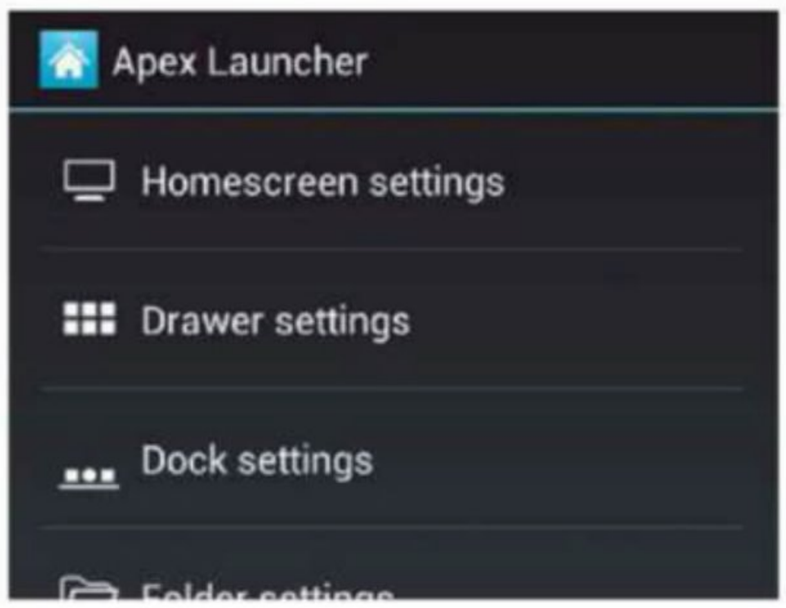
Changing your phone's launcher to make better use of the space

If you've got one of the newer Android phones with a large, high resolution display you might find that the available space on your home screens isn't being used to its maximum potential. Some pre-installed launchers stick to the standard 4x4 grid for app icons and widgets, when the increased size of the screen could easily hold a bit more content. By installing the excellent Apex Launcher on your phone you can make the grid smaller and squeeze in a few extra icons.

Get a new launcher | **Fit more on your home screens**

1: Free or paid?

There are two versions of the Apex Launcher app on the Google Play store. The paid one unlocks all the features available, but offers minimal changes from what's actually available within the free version. Choose your preferred one and install it on to your device.



2: Access Apex settings

With the launcher downloaded, access the Apex settings menu through the icon on your home screen. Here you can change every aspect of your replacement launcher, as well as check for updates. Head into the Homescreen settings to adjust how your home screen works.

3: Start customising

At the top of the screen is the Layout options, with grid choices for both portrait and landscape mode. Pick Portrait grid and then select the number of rows and columns you need. Don't overdo it, adding an extra row is enough to make a real difference while keeping things looking good.

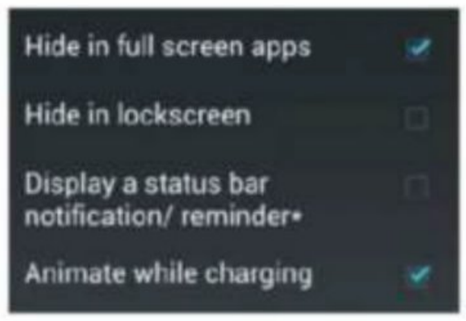
4: The end result

Go through the rest of the menus to customise the launcher even further. Once you've finished, back out of the settings and check out the finished product. If you heavily customise your settings then use the backup feature to save them for future use.

Keep an eye on your battery life

Use the ChargeBar app to monitor your battery level

You'll first need to download ChargeBar from the Google Play store. The app itself is small and requires very few permissions to run. After the app has been downloaded and installed, open it up.



The ChargeBar main menu will give you a host of different settings for you to customise. To turn on the ChargeBar and add it to your home screen, tap the switch in the top-right of the app.

Navigate back to your device's home screen and you should notice a thin blue bar at the top. This is the bar that will now indicate your exact battery life, and will tell you when your need to recharge.

App used: Power Tune-Up **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Give your phone the ultimate tune-up

Use Power Tune-Up to monitor and update your device and everything stored within it

Even when you aren't using your phone, apps will continue to run in the background, using your device's memory and battery life. Keeping on top of this sort of thing can be difficult, and having to keep making sure you close every app properly can become a bit tedious.

With the Power Tune-Up application loaded on your handset you won't need to manually check each and every time you back out of an app, and instead the intuitive app will do it for you. As well as being a great app to monitor how much of your device's memory is currently behind used, it can also be used to clear your cache, notify you of high data usage and alert you when your battery level drops below a certain point; all of which are displayed in your Android device's notification bar.

If you're looking for a way to keep your phone in tip-top shape, while also saving you a lot of time, then Power Tune-Up is the app for you. Simply follow this tutorial to learn how to master it.

Optimise your phone | Install Power Tune-Up

1: Install the app

Search for the Power Tune-Up app on the Play store and then download it on to your device. Open up and take a look around the app's home screen. The four main enhancement options are listed here, as well as the optimisation button at the top of the app.

2: Check your battery

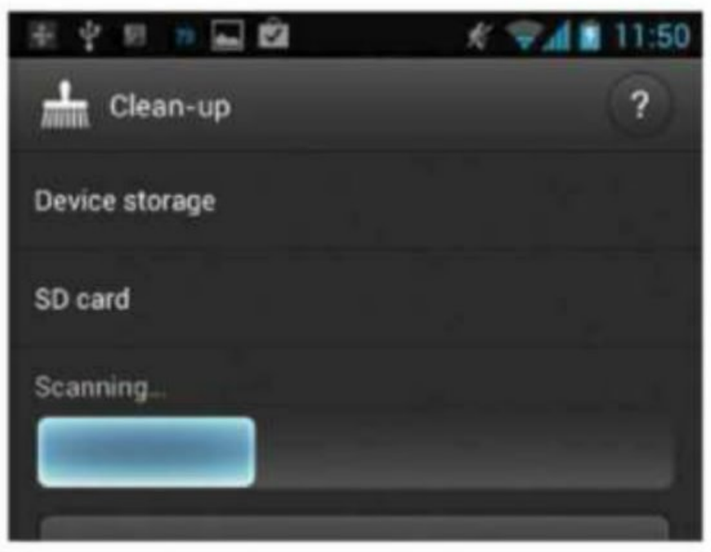
Select the Battery Saver option. Here you'll be able to alter how your battery is used on your device, as well as put in settings to help it last longer. From here you can also add notifications and widgets notifying you when your battery level drops below a certain point.

3: Clean-up your device

Go back to the home screen and select the Clean-up option. Press Analyze to enable your phone to scan your device and locate the memory you could be saving if you optimise your device. The app will then display its findings – you might be surprised!

4: Manage your usage

The next option for you to look through is the Data Meter screen. Here you'll be able to set a usage cycle based on your data plan and tariff, which will notify you when your data reaches a high level, or if you're closing in on your data limit for that specific month.



5: Work at max capacity

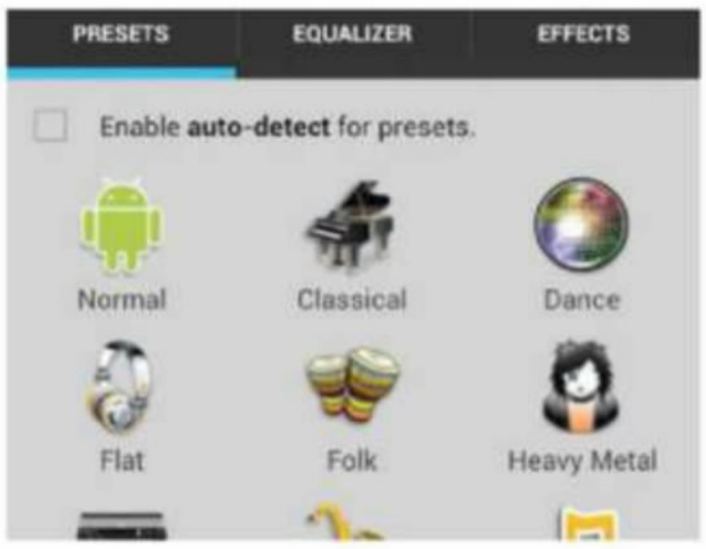
After you've looked through and customised anything you want to change, press the Optimize Now button on the home screen. This will do a full scan of your device and implement your changes. Do this monthly to keep your phone at its peak performance.

Maximise your sound

Use the Equalizer app to unlock superb audio quality on your Android device

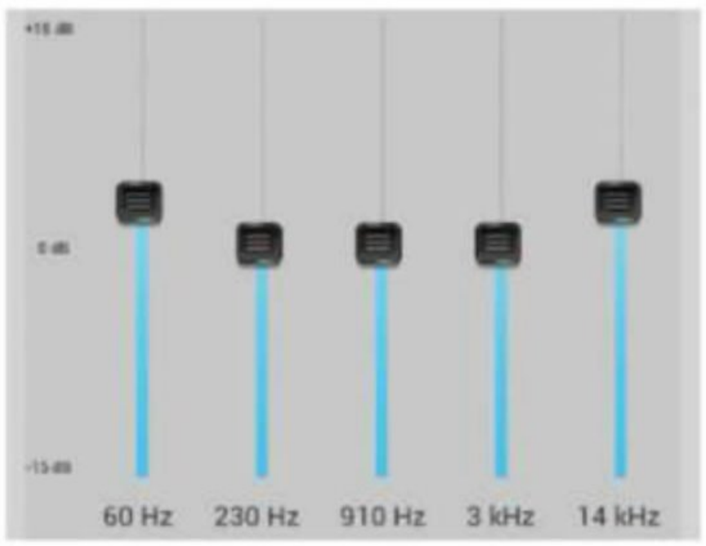
App used: Equalizer **Price:** Free **Time needed:** 2 minutes **Difficulty:** Beginner

Many people use their Android device as a hub for all their music, and with some Android devices offering expandable memory, users are able to switch between their music collections seamlessly. The revamped Play Music store enables people to download their favourite tracks and listen to them wherever they are. Apart from certain HTC devices that incorporated Beats Audio technology, most Android devices have average sound quality, but there are tools to vastly improve it. With the Equalizer app you can pinpoint the sound your Android device emits, while also adding effects and sifting through presets to match the type of music you're listening to. Here's a quick guide on how to get the most out of it.



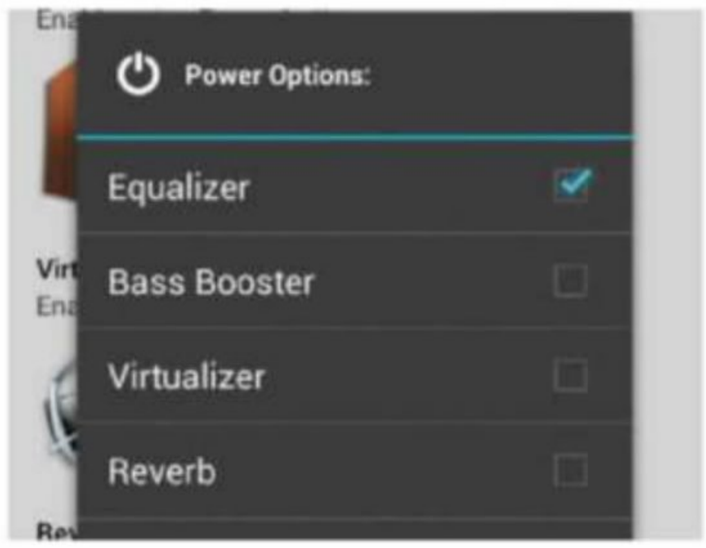
1: Choose a preset

The Presets page lets you match your genre of music with a level of predetermined audio. For example, choosing the Rock option will enhance bass levels, and the pop preset tends to enhance vocals. You can also choose the auto-detect feature if you're unsure.



2: Pinpoint your sound

The Equalizer page can look daunting at first, and if you aren't sure what you're doing, then you could potentially mess up the sound quality on your device. Each panel represents a different frequency that you can alter to enhance and detract certain parts of sounds.



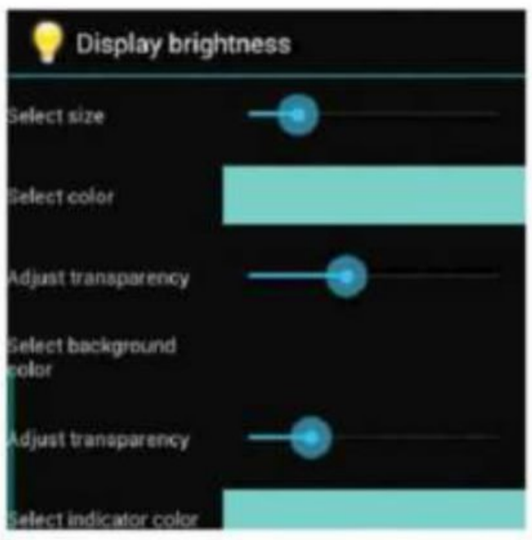
3: Virtualizer or Reverb?

By choosing the power logo from the toolbar, you'll have access to a menu called Power Options. From here you can choose some quick audio enhancements. The Equalizer option will come pre-selected, but you can choose to add any of the others if you want.

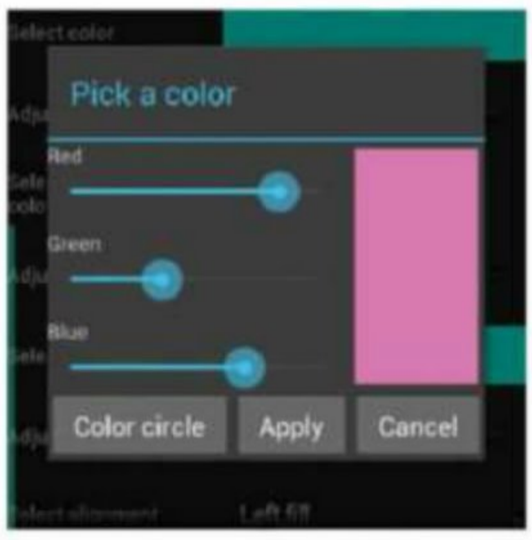
Easily adjust brightness settings

Install the Display brightness app and have instant access to your phone's brightness settings

Go on to the Play store and search for the Display brightness app. There are several similarly named apps, so make sure you've found the right one before choosing to download and install it. Then open up the app.



From the app's main menu you'll be able to customise the design of the bar when it's placed on the side of your screen. The size option will change the thickness of the bar, while the transparency option is self explanatory.



The most important option to select is the app's colour. Especially with the design of ICS, having a blue bar can be hard to see, so you may want to choose differently. Press the Enable indicator option when you're done.

Go back to your home screen or app drawer to see the bar at the left or right edge of your screen, depending on where you place it. Scroll up and down with it to alter your screen's brightness. You'll see a percentage showing the level.

Messaging

Text messaging is one the most important features of any phone. We explore your options

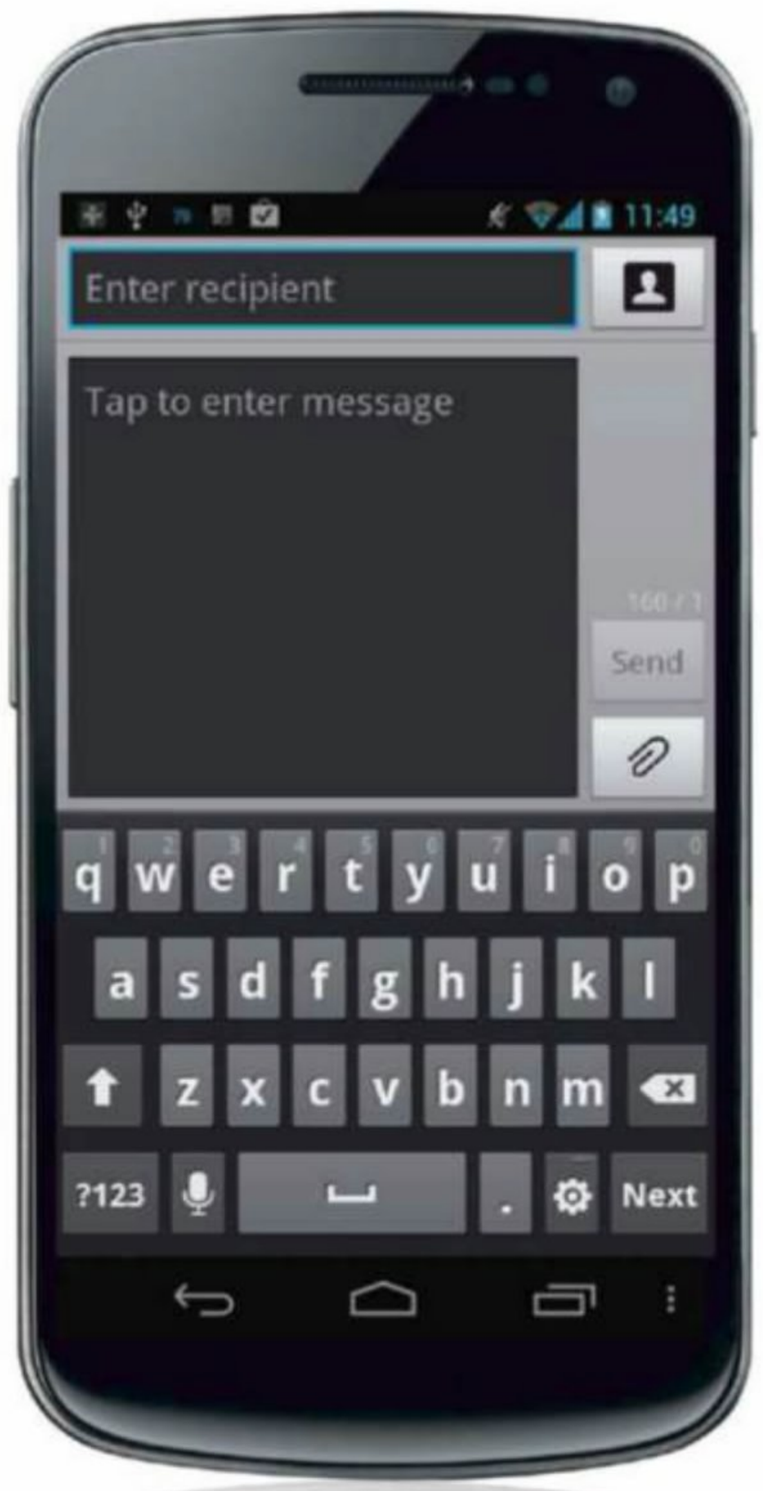
Amazingly, some people still consider text messaging to be an impersonal, cold alternative to talking on the phone. But few other forms of communication can be conducted as effortlessly or quickly as texts, and naturally smartphones are tailor-made to provide all the options you need to engage in digital chit-chat with your friends.

What's also worth bearing in mind is that on smartphones, the native apps work together to save you time and effect, and a single account for a particular service, such as Google, can be used to access and utilise a plethora of different communicative services – which we will explore here.

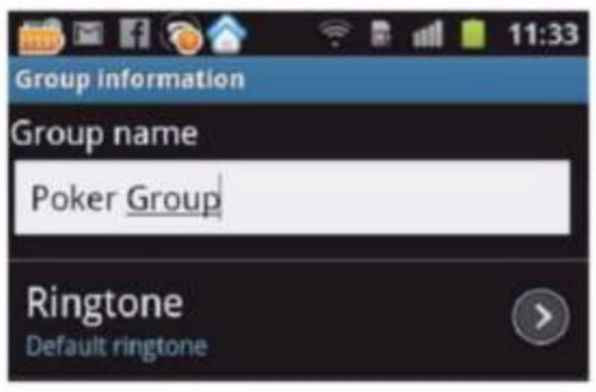
To start with, in the Contacts app you can create new groups for certain people, so if you're planning an event you can relay text messages to everyone in the group without having to select them individually. You can also 'star' people in your contacts so that they can be quickly selected from a list to save you the time it takes to find them in your contacts database. What's also worth bearing in mind is that if you still pay to send text messages, you really needn't. There are a wide range of apps available, such as WhatsApp Messenger, Google Talk and Facebook, that allow you to communicate with your friends and family for free. You have to be online to receive messages, but seeing as the majority of people stay online constantly these days it shouldn't be a problem.

Moreover, sending files and media by text is quick and easy. All native messaging apps are versatile enough to handle more or less any type of media. By tapping the attach button, you can choose from an extensive list of file types (or even create new ones – such as photo or video files – directly from within the Messaging app, saving you a great deal of time) and then navigate your device until you find the one you wish to attach, after which it is embedded in the message.

Then there's Google. Seeing how Google Play is the primary source of apps, it will probably come as no great surprise that Google should feature heavily throughout the everyday running of your phone and the apps you use. The prime example is Google Talk. Using your Google login details, all your Google contacts are instantly accessible through your device, and you can contact them quickly and easily through the Google Talk app and conduct free text chats between users, often holding multiple conversations at the same time. In this section, we explore all of your messaging options to help you text with confidence on your device.

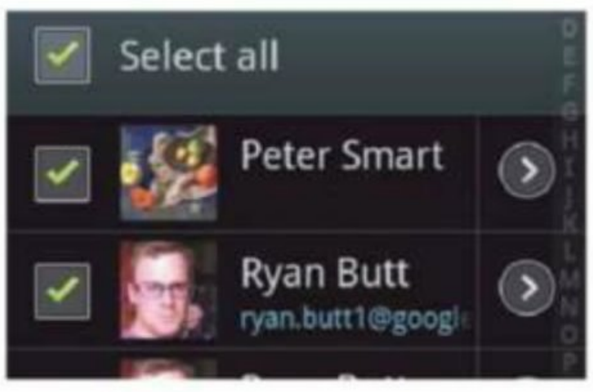


Sending group messages | Create a new contacts group and send messages



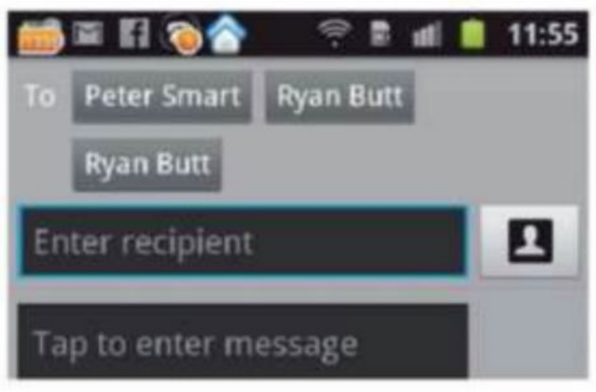
Creating a group

Open the Contacts app, tap on a person and scroll down until you see the 'Groups' category. Select this, then either an existing group to add the person to or the Menu key. Choose 'Create' to create a new group.



Compose a message

When composing a message, tap on the recipient icon and then pick the 'Groups' tab, which is located at the top of the screen. Select a group and then tap on the tick icon to add them to the message.



Send the message

Once you have added all of the intended recipients from a group to your message recipient list and finished composing your message, tap on 'Send' in order to send it to all of the people you selected.

How do I create groups to send messages to quickly?

Launch the native Contacts app, tap on the 'Groups' tab and then tap the Menu key to bring up the option to create a new group. Select this, name it and then add who you want.

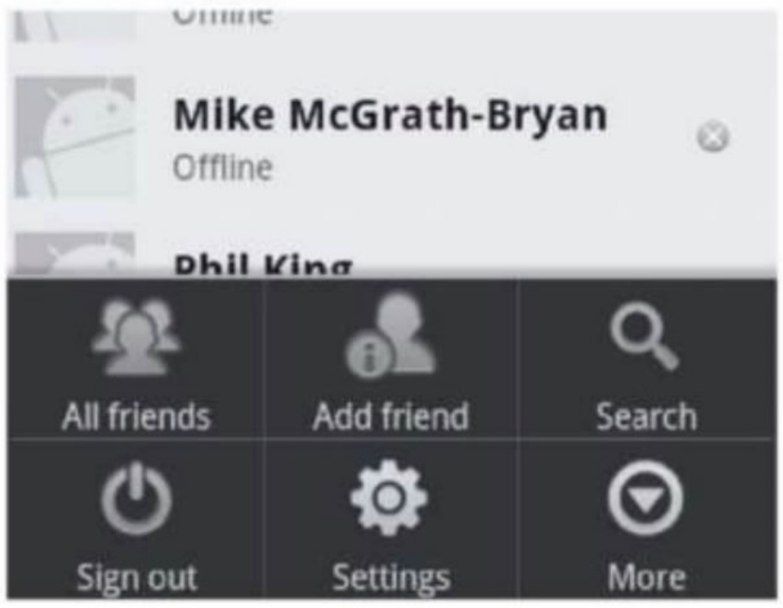
Time needed: 5 minutes **Difficulty:** Beginner

Using the Google Voice feature

Discover how to send free texts using your Google account

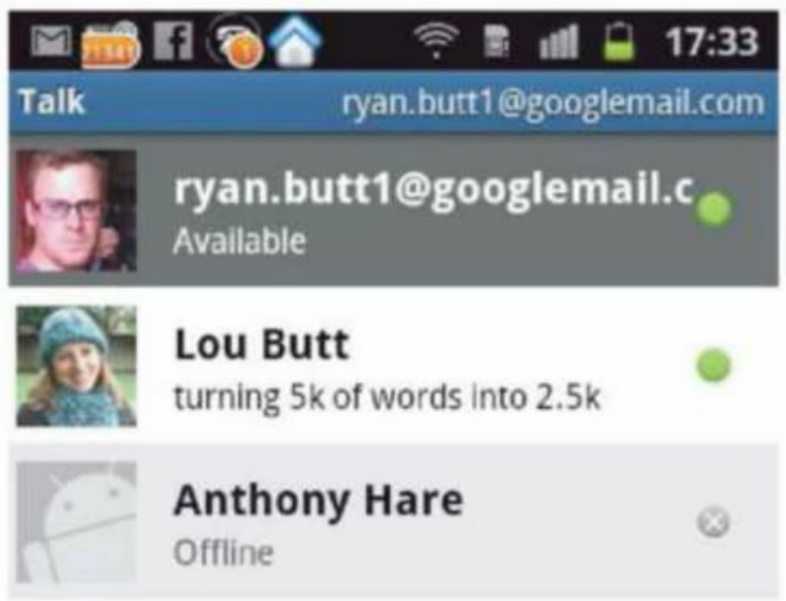
If you have a Google account then the ways in which you can integrate it into your smartphone are plentiful. Take Google Voice, for example. With this service you can chat with your friends and send text messages for free, engaging in multiple conversations at the same time. You can access this service in multiple ways, such as through the Talk app on Samsung devices – but the functions it provides are universal. In this tutorial we'll show you how to engage your friends in Google chats.

Google Voice | **Using its features**



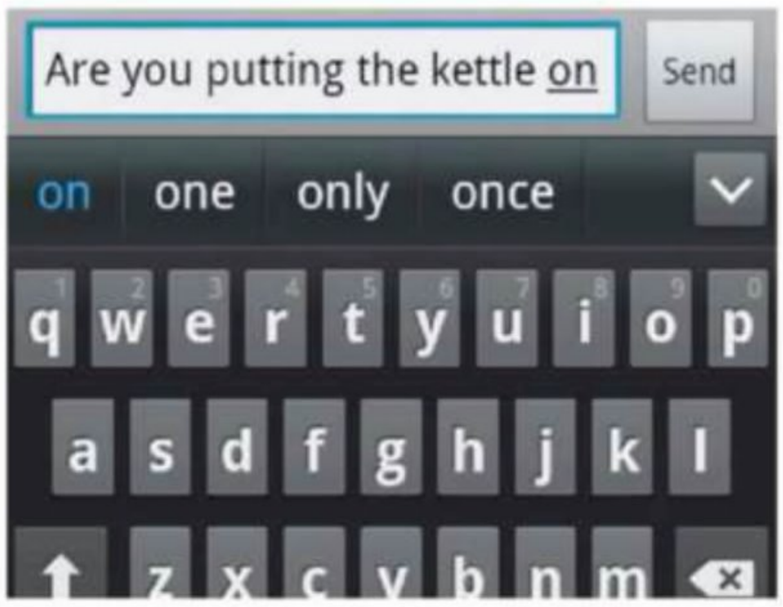
1: Finding friends

When you launch the app, you will see a list of Google contacts. If the person that you would like to chat to isn't listed then simply tap on the Menu key and choose 'Add friend'. You can then enter and store the details of the person who you would like to add.



2: Start chatting

Once the friend has been added and is shown as being online, you can start a text conversation with them. Tap on their name and a chat window will open. Type a message into the field provided, and then hit the 'Send' button in order to send the message off.



3: Type quicker

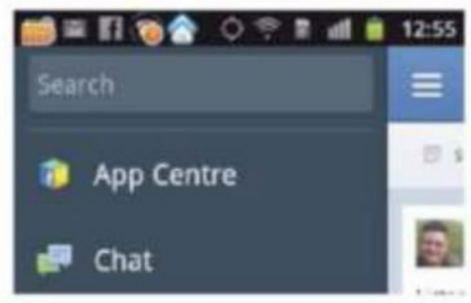
Handily, the app uses predictive text, so as you start typing a word, the app will recognise it and provide you with a row of suggestions. Instead of finishing off typing the word, tap on the option you wish to use in order to instantly apply that particular word to your message.

4: Your chat options

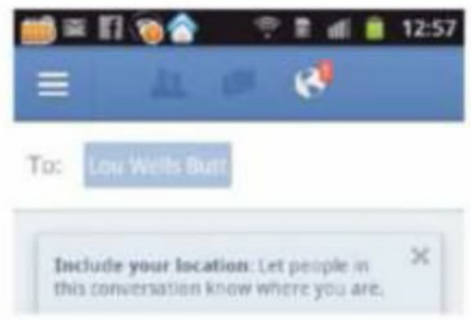
By pressing the Menu key, you will display additional options that may prove to be useful, such as recognition of whether the text chat is on or off the record, the option to switch chats if you have other active ones on the go and many more besides.

Chatting

Apps represent a great way to communicate with people. They are quick, easy to use and don't cost a penny…



Apps like Facebook, Google Talk and WhatsApp Messenger are a great way of communicating for free, because they allow you to send messages to your friends quickly and easily.



To chat in Facebook, tap on the list icon and scroll down until you come to the Apps section. Here, you should see a feature called 'Chat'. Select this, and then pick a friend to converse with.

Enter your message and hit 'Send'. You will then be taken to a screen that displays your current conversations and your conversation history. Tap on the person's name from the list to return here later.

Time needed: 5 minutes **Difficulty:** Beginner

Exploring your Messaging settings

We guide you through the settings that relate to your Messaging app

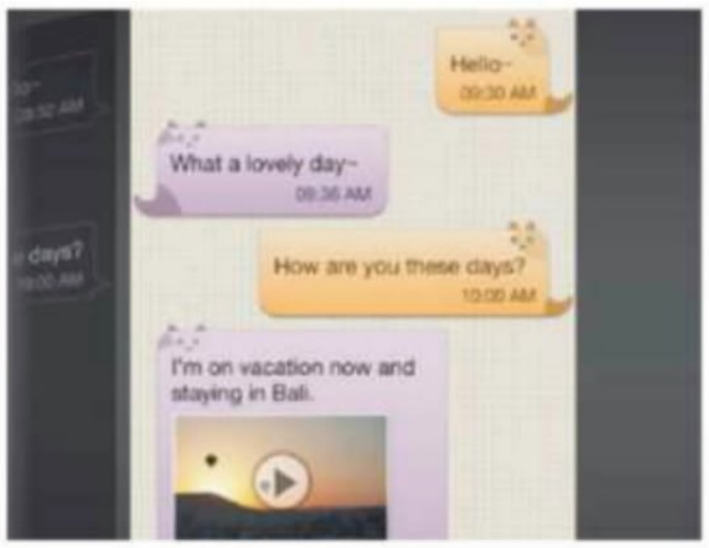
Seeing how every smartphone has its own messaging app, they naturally also have their own extensive set of settings to accompany them in order for you to tailor the app to your own specific needs.

At the top of the list are the options that allow you to alter the appearance of your messages. As well as changing the size of the font and determining whether your text conversations will be split when viewed in landscape mode, you also have the option of deciding how you want the messages to be displayed on the screen.

If you are on a tight data plan then there are also settings to allow you to set a message limit for each conversation. Moreover, you can command the app to delete old messages when you reach that limit.

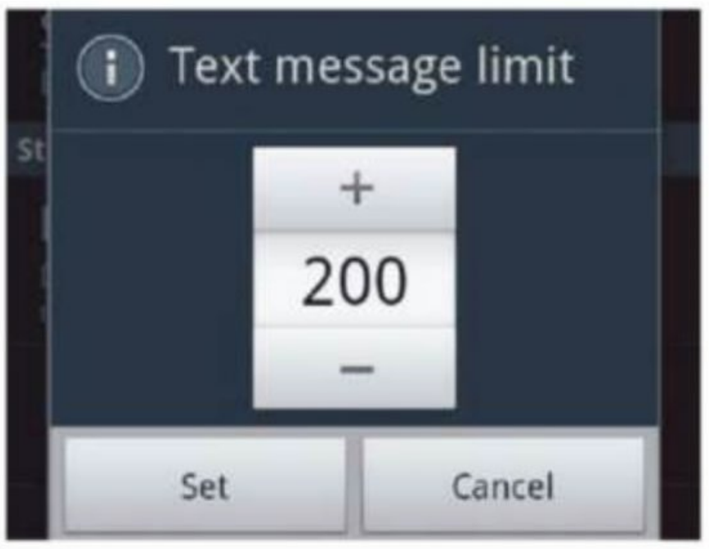
Other useful options include the choice of toggling delivery reports. These provide confirmation that your messages have been sent and that they have been read, so you can instantly know if the recipient is cheekily choosing to ignore you!

Messaging | Exploring the app



1: Your main settings

The first section of options relate to general settings and include features such as 'Message skin', whereby you can select the way in which the messages appear on screen, plus options to change the size of the font and enable a split-screen view when in landscape mode.



2: Storage settings

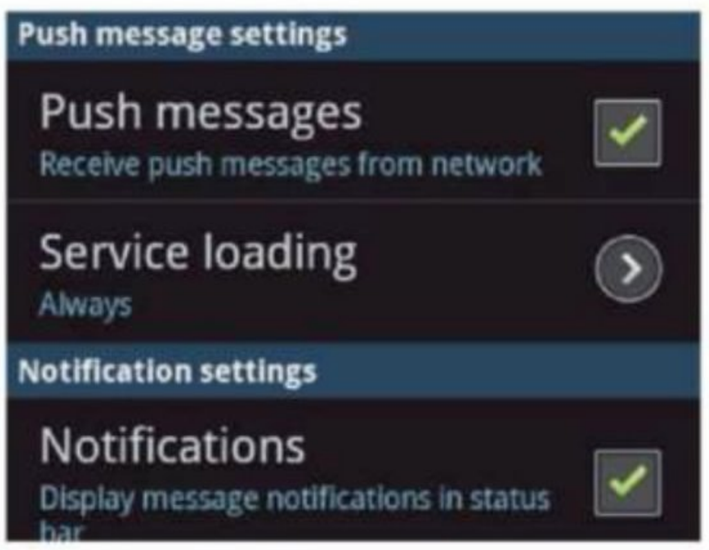
The Storage settings section includes options to delete old messages when the maximum number of messages has been reached, as well as the option to set this limit, which is useful if you are on a tight data plan. You can also set the multimedia message limit.

3: Text message settings

The Text message (SMS) settings allow you to get delivery reports and set the input mode you use when composing messages. A delivery report is a small line accompanying each message that confirms the time and date it was sent.

4: Multimedia message settings

Your Multimedia message (MMS) settings include the option to toggle on 'Read reports' as well as delivery reports. These provide an indication that your message has been read by the recipient. You can also decide whether messages are retrieved automatically or not.



5: Other settings

The final settings sections relate to push messages and notifications. Push messages are messages received by your network, and the notifications alert you when you receive a new message. You can toggle both of these options on or off to suit your needs.

Time needed: 2 minutes **Difficulty:** Beginner

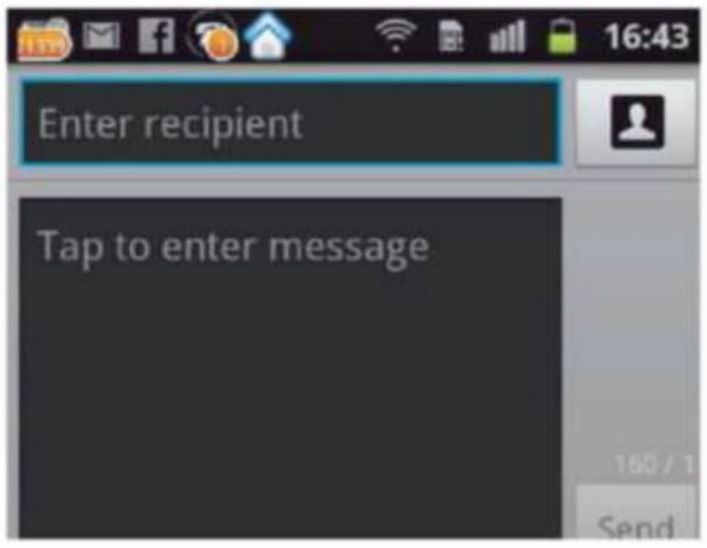
Attach files & images

How to send pictures and multimedia files with your text messages

They say a picture says 1,000 words, so why not save yourself some typing and instead use SMS to send images or other assorted media files to your friends and family?

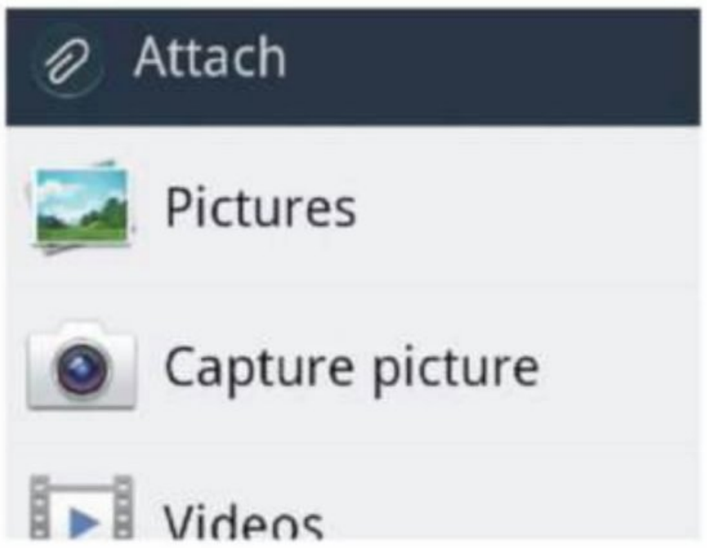
The process is easy, and gives you the complete freedom to attach and send pretty much any type of file that you want to – all you have to do is select the type of file, navigate your way through your phone to find it, and then simply tap on a particular file to choose it.

After this, the file will become embedded into your text message, and then you can just finish composing it and then send it off as you usually would. Here, we will guide you through the simple process of attaching a file – simply read through the following step-by-step tutorial to have a go.



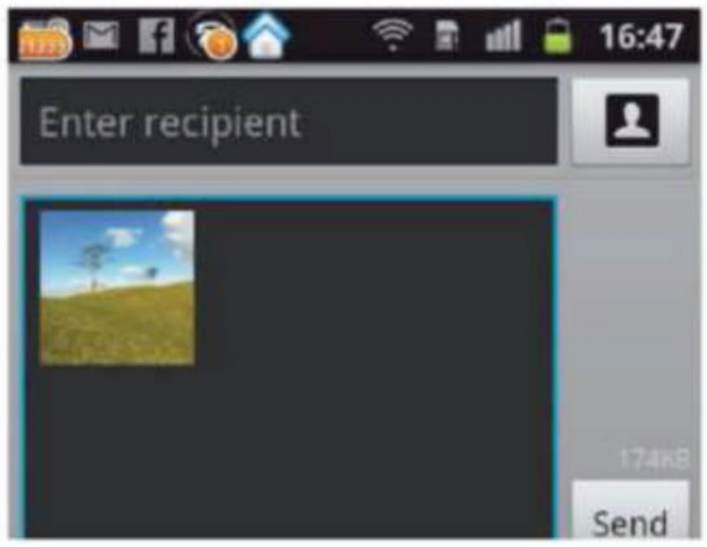
1: Start composing a message

Launch the Messaging app, and then tap on the pen and envelop icon in the top-right corner of the screen to start composing a new message. On the composition screen you will see a paperclip icon – tap this to add an attachment to your message.



2: Choosing a file

You will now be presented with a list of types of media. If you wish to attach an image taken on your phone's camera, tap 'Pictures'. Otherwise, there are options to attach videos and audio – you can even capture new images or video in-app.

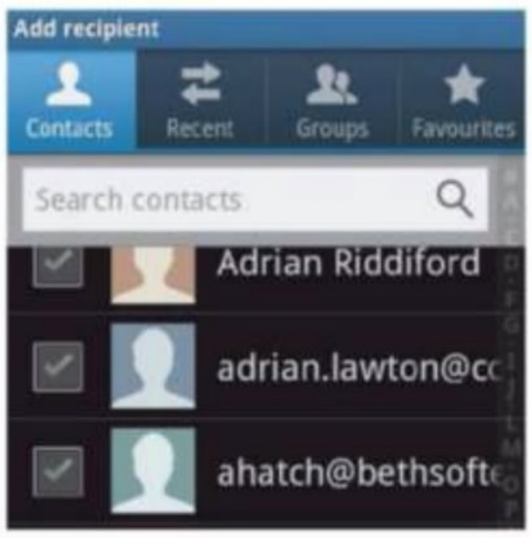


3: Choose file and attach

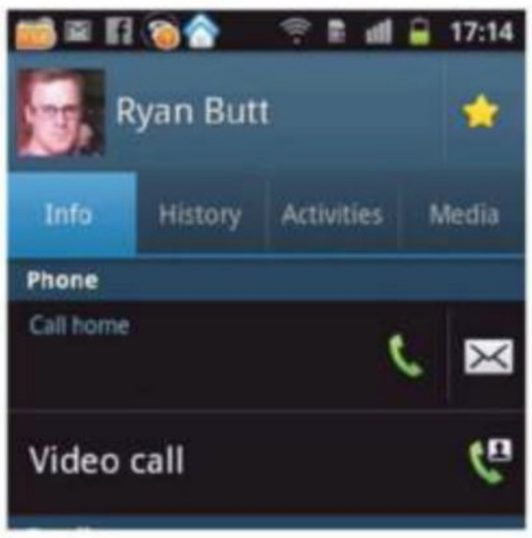
Navigate through your device until you find the file you wish to attach and then tap on it. You will be taken back to the composition screen where you will see that your selected file is now embedded in the message. Now, just write what you want and send as normal.

How to personalise your contacts

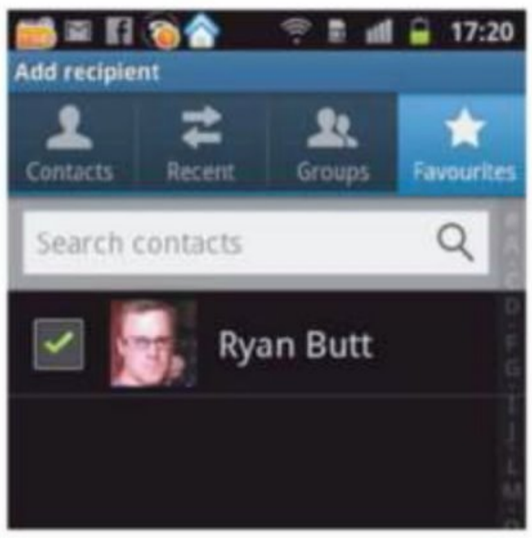
How to make the people who matter most to you easily accessible



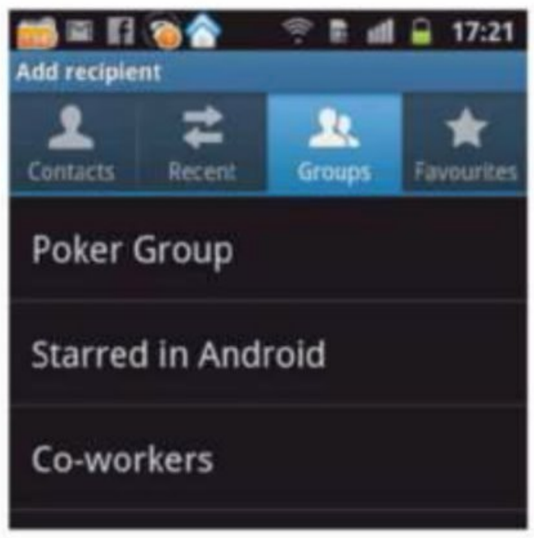
When you are searching for a recipient to apply to your messages, your contacts will be listed alphabetically. Choose a selection of contacts by tapping on them and then the 'Add' button to include them.



To avoid scrolling through your contacts database every time you want to send a new message, you can 'star' contacts as favourites in the main Contacts app. Launch this and tap on a contact you wish to mark.



Tap on the star icon in the top-right corner and launch the Messaging app. Now, tap on the Favourites tab and your newly starred contacts will be accessible from the list. Tap on one to add them as your intended recipient.



You can also create you own groups. By doing this, you will have instant access to collections of contacts that can be selected simultaneously with a single tap, thus saving you a great deal of time if you're planning an event.

Using your Camera

Start taking better pictures with your smartphone

One slightly overused, but nonetheless true, cliché is that 'The best camera is the one you have with you'. Even if it means an Android smartphone with a less than cutting edge camera. Here it's the Samsung Galaxy Nexus, the newer Galaxy S III would produce better results, but the attraction here is the pure Android interface – and this extends to the Camera application.

In this article, we'll be looking at ways to take better phones on your Android smartphone – and if the Galaxy Nexus can do it, the chances are your phone can, too! Whether it's taking the best photos of really close-up subjects, making the best job you can of challenging night or low light conditions or getting really arty with panoramas, this article should help.

Rather obviously, the key to taking better photos is to be a better photographer – we're not talking evening classes (necessarily), but more educating yourself to be aware of the fundamentals. Note the light level and where the source of light is. You may think the office is well-lit, but go through the door and out into the sunshine and your eyes will tell you that it's a LOT brighter in the sun. Our eyes are wonderful at adjusting to lower light levels, a smartphone camera isn't quite as adaptable. The more light, the better your photos and the easier your job. And try to keep the source of light roughly behind you or to the side of you.

Also obvious in hindsight is to wipe the camera glass on your smartphone with a tissue before any important shots – it's surprising how dust and finger grease can build up, with the result that photos will appear blurry or hazy. As a last resort, wipe the camera glass on your t-shirt or similar, but an absorbent tissue is best.

Back in the 1980s and even 1990s, photography was all about shooting rolls of film, typically 24 shots per film, so you had to choose your subjects incredibly carefully and you could only afford a couple of shots of each, because the buying and developing process was so expensive. These days, you can be at an event and shoot anything that takes your fancy, even multiple tries at the same subject. Back at base, you may only get around 10 great photos from 100 snaps, but don't be discouraged – this is normal, especially for a phone camera. And all the photos are totally 'free', so go wild and experiment!

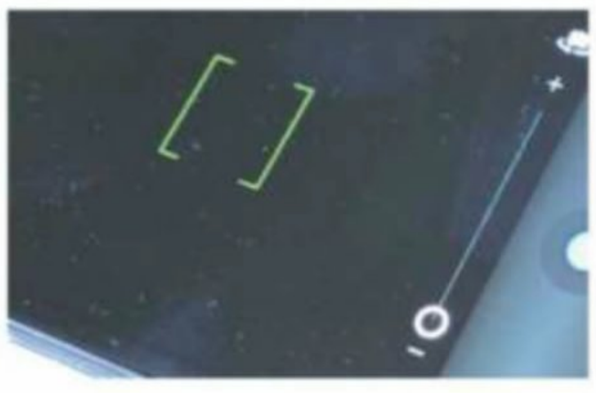
Taking a photo | Becoming familiar with the Camera interface

Quick start up

Always be ready to snap. Learn the swipe or keypress that instantly activates the camera on your smartphone – and stay alert! Here, on the Galaxy Nexus, swipe left from the Jelly Bean lock screen.

The virtual shutter button

With no shutter button on almost all Android phones, you should get to know the big blue virtual shutter button, falling naturally under the right thumb. With practice, you won't even have to look!



Continuous auto-focus

Most modern Android phones, as here, will continually auto-focus as you move around, so that the focus is always as up to date as possible. Look for the animated set of 'brackets', which should end up green.

Why doesn't my camera interface look like the one shown here?

Many manufacturers replace standard Google UI elements with their own versions. Almost everything in this tutorial will still apply.

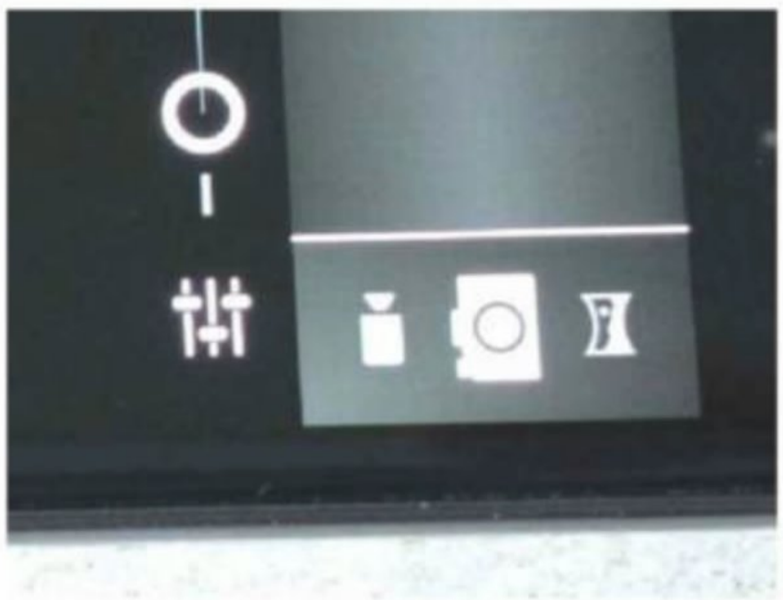
Time needed: 1 minute **Difficulty:** Beginner

LED flash photography

Learn about phone LED flash uses, tips and limitations

It's vital to downplay expectations when considering phone LED flash – it's strictly a last resort. When it's too dark to take a photo in natural light and when your subject is quite close, you may get a decent photo with LED flash. If your subject stays still, if you don't move the phone too much, if they're at just the optimum distance. Quite a lot of 'ifs'. But, faced with the option of LED flash or no flash at all, at least this may help grab that all important memory.

Using LED flash | Adapting your camera for poor lighting



1: Flash mode

In the Camera app, tap on the Settings icon (a group of three miniature sliders) to automatically slide up the control icons, and then on the top (flash) icon. This is where you select your desired 'Flash mode'. 'Auto' is perhaps the best mode to use if you are a beginnier starting out.

2: Sensible distances only

For the best chance of a decent LED-lit photo, aim to snap a subject positioned more than 30cm and less than 2m away. Closer than this and the subject will be flooded with too much light, further away and there won't be enough light – the snap here shows the whole range.

3: Fill-in flash

In challenging light conditions, such as in this picture where your subject has a window behind them, there's an uwanted 'silhouette' effect and to fix this you might like to try 'fill in flash'. This is more useful with proper Xenon flash, but only a handful of smartphones have this.

4: Forcing 'Flash mode' on

The idea is to set 'Flash mode' to 'On' to force the LED to light up dark details in your subject, as shown here. It may seem strange to be using LED flash when it's daylight outside, but it can make all the difference in getting a sparkle from your subject's eyes!

Using digital zoom

Why the zoom slider doesn't offer a quick fix

It all seems so easy. Use the sliding zoom control on a photo on your Android – hey, everything just got a lot closer and clearer, right? But you're being conned. For example, take this photo of a parked car.

Zooming right in on this car and snapping the shot, here's the result. Yes, it's zoomed, but it's also incredibly 'noisy' and pixellated. Digital zoom doesn't gain you any detail.

In contrast, make a rule never to use digital zoom. Instead, if you want more detail, make more effort to get closer to your subject, as here. Halving the distance to the car gives us this comparable result.

Time needed: 5 minutes **Difficulty:** Intermediate

Taking sharper pictures

Learn the importance of focus, of light, and of depth of field

As mentioned above, light is important to good photos – enough photons of light flying around and there's enough quality information being recorded on the small camera sensor in your smartphone. Light is also important for focussing, since this is done by the software by varying the lens focus until the centre of the image (or the spot you tap on) has maximum contrast.

This presupposes that there's enough light for the software to be able to tell when contrast is maximised. And it also assumes that the subject you're trying to focus on has enough fine detail in the first place. One trick is to find another object with plenty of detail (such as your hand) and place that next to the item your trying to focus on. Focus on your hand and then, when ready, take your hand away and take the shot quickly.

1: Focussing basics

With the Galaxy Nexus and other modern devices, the focussing process is automatic, though you can override it to focus on a particular subject (e.g. a close-up flower) if you want by tapping on the appropriate spot on the smartphone's screen.

2: Watch out!

When a focus lock is achieved, you'll see a green 'reticule', accompanied by a beep, your cues that everything is in order. If you're too close or if it's too dark, watch for a red reticule and no beep, your cues that no 'lock' could be found – your photo will be blurry.

3: Focussing in low light

For nearby subjects, the LED light should come on to help focus in low light, but for anything further away, find something in the frame that is well defined enough to let the auto-focus lock on – and then hope for 'depth of field' to do the rest.

4: Depth of field

Understanding this term is important. Essentially, for any subject distance and prevailing light levels, everything within a certain range ('depth') will be crisp and acceptably in focus, as shown here with high depth of field in bright sunlight.

5: Shooting 'bokeh'

In lower light conditions and when shooting very close subjects, you can even achieve some 'bokeh', the classic arty use of small 'depth of field' to get a crisp subject against a blurred background. Shoot as close and focus as precisely as you can.

Time needed: 5 minutes **Difficulty:** Beginner

Capturing the night

Top tips for shooting after dark and mastering Night mode

The problem with taking photos at night is that there aren't, in the typical shutter time of a fraction of a second, physically enough photons of light hitting the sensor to produce a good image. For people, close-up, there's the LED flash, but what about events and landscapes? How can you get more light into your phone's camera? The answer is to take much longer 'exposures'. While there's no direct control over this parameter, almost every phone now has a 'Night' scene mode. This gives you up to ten times omre shutter time. Ten times more photons of light means ten times less noise and a far better photo, provided you take a few precautions.

1: Steady as she goes

In Night mode, with the shutter in your phone camera open for longer, it's crucial to keep the phone steady – any movement and the photo's going to be blurred. Try to brace the phone against a wall or similar.

2: No subject movement either!

Just as important as keeping your phone steady, the same applies to what you're shooting. Landscapes and objects will be fine, of course, but encourage people to pose or pick your moment when they're stationary.

3: Think about a tripod

Don't laugh – you can now get small, inexpensive, ultra portable tripods with clamps to hold phones in landscape mode. Perhaps keep one of these in your car boot, ready for retrieval if you chance upon the perfect sunset?

Take panoramic photos

Panoramas look great printed or as web banners, here is how to make one

1: Go panoramic

In the Camera application, tap on the stills/video/panorama icon, then tap on the panorama icon (it looks like an hour glass on its side). The Camera UI simplifies for this mode as there's no need for flash/focus etc.

2: Swing and shoot

The idea is to brace yourself steady, then start by facing the left hand side of your shot and tapping the shutter icon. Then gradually turn to the right as smoothly as possible while your phone captures the panorama.

3: Slow and steady

The bottom-of-screen icon 'fills' as you move – if it flashes red then you're swivelling too fast. Aim to finish in about 20 seconds. When the panorama is complete, the composite image takes a few seconds to stitch together.

4: Check out the view

After 'Saving', tap on the Gallery thumbnail and you can view, zoom in on, and browse your new panorama. Note that, for technical reasons, a panorama is limited in vertical resolution, usually less than 1000 pixels.

Social media

Social networking is not just about Facebook and Twitter any more...

When it comes to social media, the landscape appears to be dominated by two big names. As good as Facebook and Twitter are, however, there are much more out there, and some of them are proving to be so popular that they have even caught the attention of the large players. Recently, for instance, Instagram was bought by Facebook for a cool $1 billion.

Instagram allows you to create stunning photos using a built-in editing package that then allows you to share your images with others. By putting eye-catching software on your Android phone, you will soon become addicted as you try to impress other people with your photo-capturing skills. As you would expect, you can also comment and see what others think about each image.

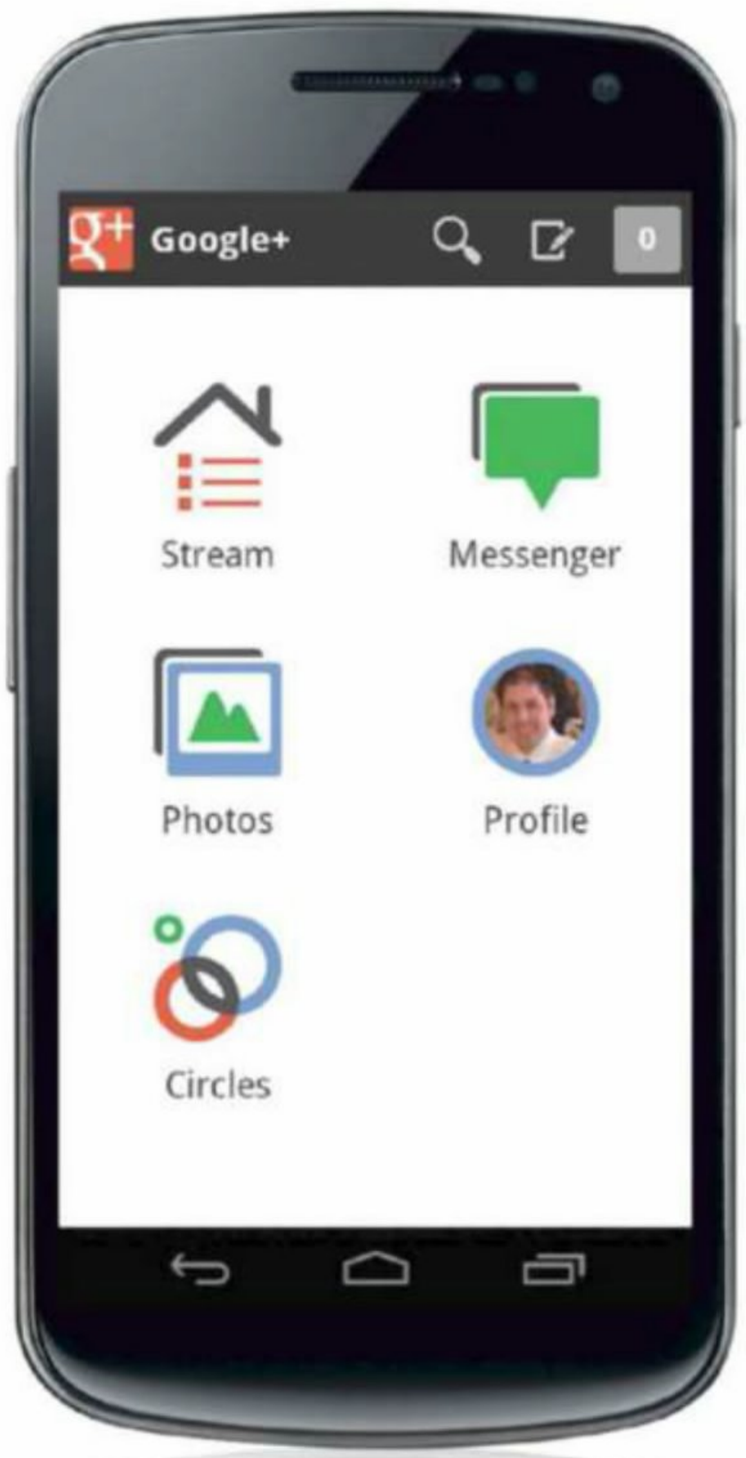
But even that is not the end of it. While you can spend ages looking at other people's images on Instagram, you could also be spending time chilling with GetGlue and telling the world exactly what you are getting up to in your spare time. You can also sign up to Pinterest, which is essentially a huge online notice board on to which you can share images that you come across in your daily web trawls.

Not that some companies are refraining from taking Twitter and Facebook head on. Google+ attempts to replicate the latter with a service that hopes to get around the problem of lumping everyone you are acquainted with in one big pot by allocating people into circles.

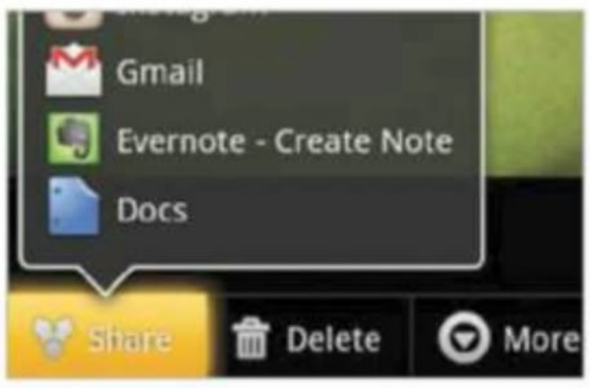
One of the good things about many of the new social networking apps that are emerging, though, is that they don't require you to start again from scratch. Facebook and Twitter integration has become the norm and many apps will even allow you to log in using Facebook. That is certainly the case with Path, an app that could replace Facebook, but which chooses instead to work with it, letting you upload videos and photos and share details about yourself to that site and other networks.

Of course there are also many other apps that you will no doubt have heard of from Flickr to Last.fm to MySpace. And there are apps such as Pingdroid, which allow you to post an updated status on loads of different networks all at the same time.

The apps we are looking at here are innovative and fun, and they are also hugely popular. A social network has to be well used in order for it to be useful so we are looking at those that your friends and family may already be using. So load up your device – it's time to join in the fun!



Integrating social networks | Looking at perfect partner apps

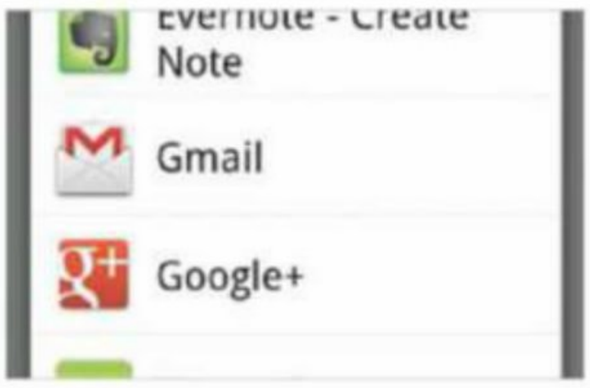


Share via Gallery app

When you look through pictures on your Gallery's photo roll, you can select to share them straight to your chosen social network. Tap on Share and a list of all of the available social networks will appear.

Share a video

When you shoot a video on your Android phone, you can tap the saved flick and then select Share. All of the social networks which accept video – e.g. Google+ – will appear in a list, ready for selection and uploading.



Share webpage

If you are surfing the web and you find a page you wish to share, tap the Menu button on your device, select More and then Share this page to bring up any social networks which allow you to use it.

How do I make a shortcut to the browser version of Pinterest?

Tap the star icon to the left of the URL box. Add Pinterest as a bookmark, name it, and then long-press on it. Select Add shortcut to Home from the pop-up menu.

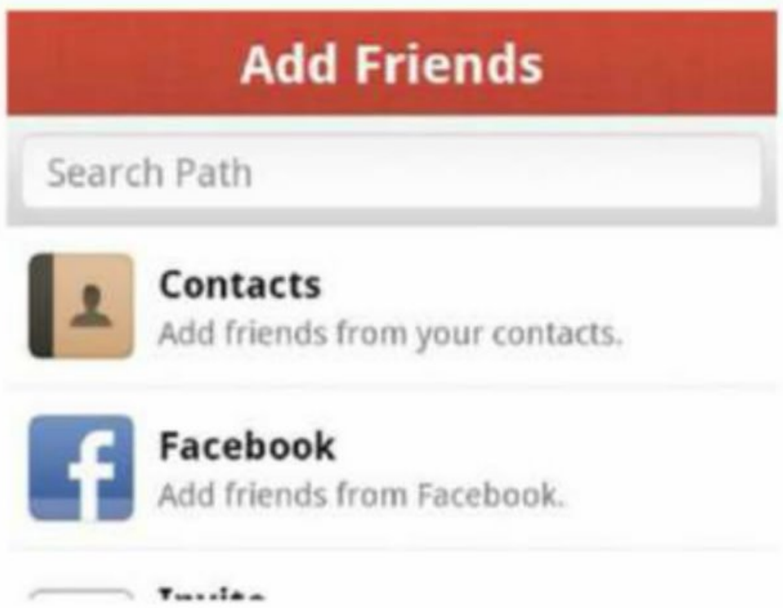
App used: Path **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Upload your life to Path

Share your music, life, location and thoughts with friends and family

Path is an app specifically created for smartphones that allows you to share your photos and videos. You can also tell others who you are with and where, send messages and divulge your favourite music. Updates can be viewed via Facebook, Twitter, Foursquare or within Path itself. Download Path (free) from Google Play and you'll be asked to 'Start a new Path' if you are not yet a member. Input your name and details, change your avatar image and set a cover to begin.

Set up Path | Start using a next-gen social network



1: Add friends to Path

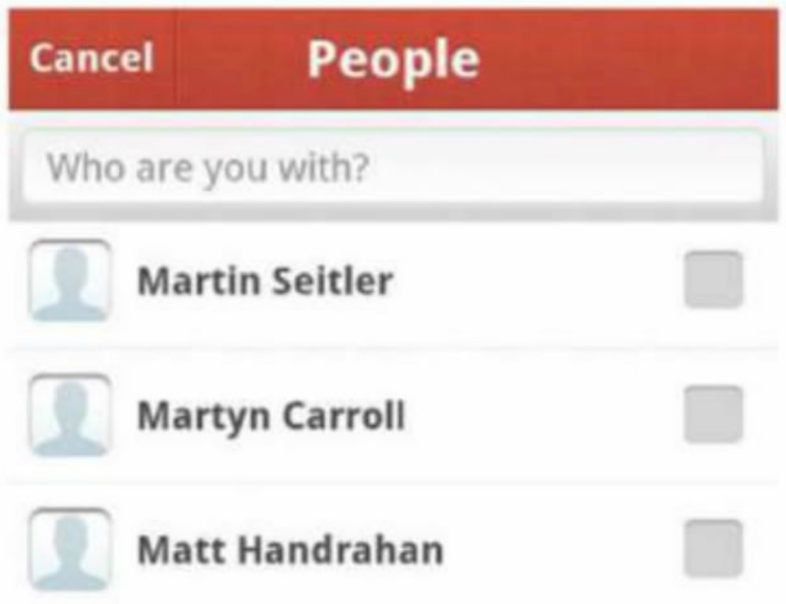
You can invite people from your contacts list or see fellow members on Facebook. You can also send emails or invite friends via text. Click the Friends icon in the top-right corner of the screen and it will ask you to link Path with Facebook to see your Facebook contacts.

2: The main menu

At the bottom of the screen, you will see a '+' symbol. Tapping this brings up the main menu and from here you can select to share a photo, information about who you are with, your location, music, thoughts and even indicate if you are sleeping. The options are endless.

3: Share a photo

Tap the '+' option and select the camera icon. Decide if you want to share a gallery photo or take a fresh one to upload. Jot a few details about the photo on the Post page and press the Facebook, Twitter, Foursquare or Path icon to share it to your chosen network.



4: Who are you with?

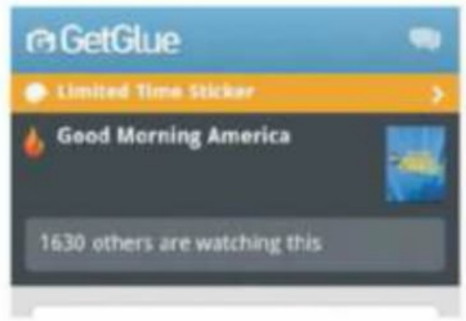
Again, tap '+' but select the People icon this time. A list of contacts will appear. If they are members, a photo will appear, otherwise it will show a blank image. Tick the boxes to show who you are with and select Next. Tapping Save will update the info to Path's network.

Tell everyone what you're watching

Keep everyone up to date with the GetGlue app

Sign up using Facebook or email. The main screen shows any messages and chats you have, but the main feature is Check-in. When you are watching or listening to something, tap this button.

Tell GetGlue if you're watching television or a film, or if you are listening to music or a podcast, reading, playing a game or thinking about something. It also calls up a list of trending entertainment.



If you can't find the show among trending topics, search for it. When you tap a show, music or game, you can add a comment. You can then share to Facebook and Twitter. Tap Check-in to finish.

App used: Pinterest Price: Free Time needed: 10 minutes Difficulty: Beginner

Follow like-minded users on Pinterest

Pin images and videos to a huge wall with this great social photo-sharing website

Launched in March 2010, Pinterest has made steady progress, letting users create collections based around themes. Once you have produced a theme, you are able to 'pin' videos and images to your notice board which can then be shared via social networking giants Twitter and Facebook, thereby tapping into a much wider community of potentially interested parties.

The idea is that like-minded people who enjoy a similar subject will hook up and share. But even though it is more than two years old, there is still a need to request an invite in order to join. This can take a day or so and, when accepted, you will receive an email. We've yet to hear of anyone turned down.

At the time of writing, the Pinterest for Android app hadn't yet been released, though there was a great deal of excitement over its expected launch later this year. Not to worry, however, because there is a mobile-enabled website which you can access at **m.pinterest.com**, and it is this that we will be using for the purposes of this mini-tutorial.

Pinterest | Build your shareable notice board

1: Viewing pins

Log in to the mobile website via the browser on your device at **m.pinterest.com** to view pins that are in your areas of interest. To set up themes, you need to access the full site. Click the pin icon in the right-hand corner and select the full site option.

2: Adding a theme

On the full site, click Add at the top of the page. You will see three options: Add a Pin, Upload a Pin and Create a Board. For this example, select the latter, write the board name and category and select who can pin to it, either just you or contributors too.

3: Commenting on pins

Click the Back button on your phone to go back to Pinterest's mobile website. Tap Comment underneath a post and you will be able to jot some notes down. You can also select to Like the post or Repin it – that is, display it on your account's notice board.

4: Narrow your search

Tap on the magnifying glass icon at the top of the screen and you can view different types of pins ranging from those you follow to 'Everything'. You can also look at videos and the most popular pins. There is also a search facility to help scour through various tags.

5: Check your profile

Although you need to be on the full site in order to upload a pin from scratch or create one, you can view your own Pinterest profile. Click the pin icon and select Profile. This shows how many pins you have, the number of likes, followers and your categories.

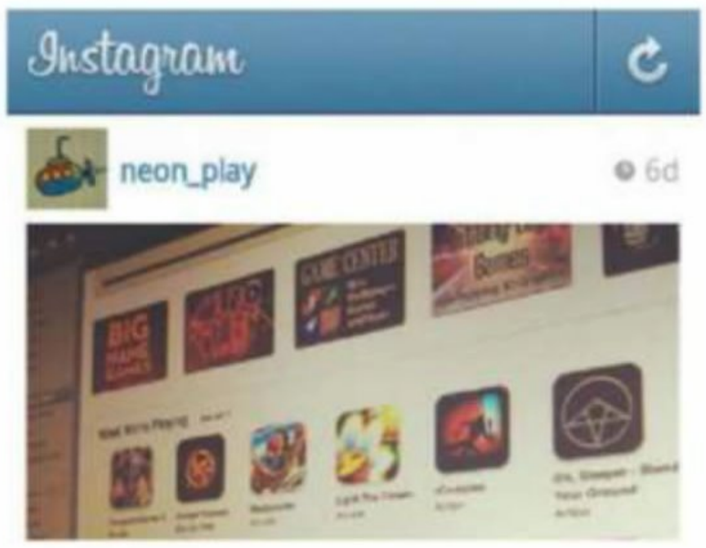
Focus on Instagram

Mark Zuckerberg loved Instagram so much, he bought the company. Let's get snapping!

App used: Instagram **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Instagram is a social network with an emphasis on images. It allows you to take a photo using your phone's camera and edit it on the fly, adding special effects and even making them look like a Polaroid image. The filters can really alter a photograph giving them a very retro, vintage feel. These can then be shared using existing social media networks such as Facebook and Twitter.

The app used to be restricted to just iOS devices but recently it was ported to Android. The same brand of Instagram magic is still on this new app, including the 4:3 aspect ratio of taking photos. You can see just how versatile and fun Instagram is by looking through the thousands of snaps taken by others.

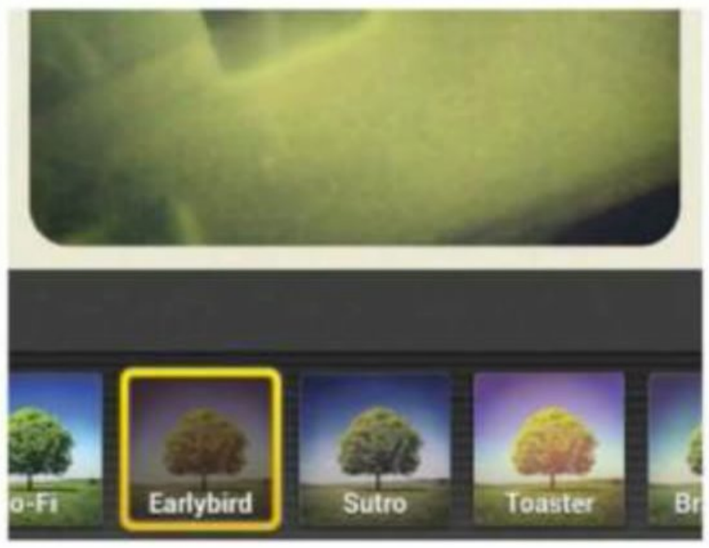


1: Viewing photos

Find friends through your contact lists, Facebook friends or Twitter. Tap the speech bubble to comment on an image or double-tap a photo to Like it. Tapping the star icon shows popular images on Instagram. If you see anything dodgy, tap '…' to flag for review.

2: Take your own photo

Tap on the camera icon and you will be asked to take a photo using your smartphone's camera or use an image from your photo gallery. Use the crop tool to select the exact area you want to share. You will then be taken to the all-important editing page.

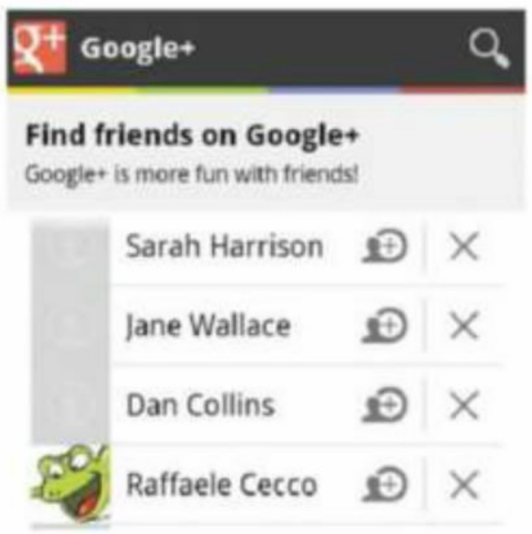


3: Edit and share

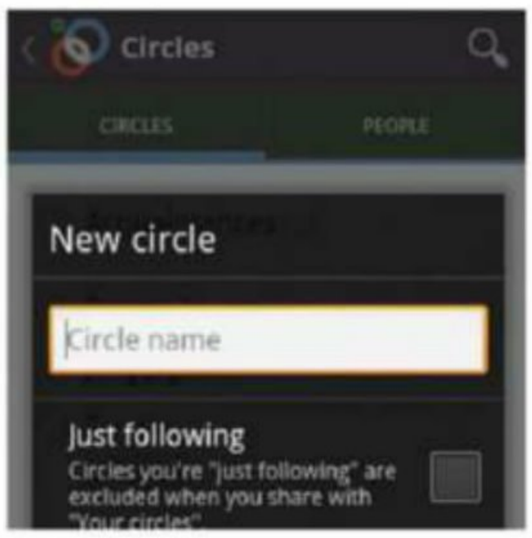
You can add different effects to your image, alter the brightness, rotate it and add a border. When you have finished editing, tap the forward on-screen button, type a caption and decide if you want to share on Facebook, Twitter, Foursquare and Tumblr. Tap Upload.

Use circles on Google+

It is Google's answer to Facebook, and gives you the ability to group people in 'circles'



Create a new Google+ account. When you log in, you will be shown people you may know through your other Google activities and you will be invited to add them to relevant groupings known as 'circles'.



If you haven't set up any circles, then click on the Circles option from the app's homepage. Select Create New Circle. Add a name for your circle, such as 'friends,' 'family,' or 'work', and tap OK to complete the action.

To add a friend to a particular circle, make a category selection when you decide to invite someone. You can change the circle they are in by hitting on their name and tapping the circle they are currently in.

You can also view Posts or Photos of anything a friend has included on their profile. To send messages to select circles, tap the note icon on the main Google+ page, tap Your circles and select the ones you wish to communicate with.

Cloud

You can store everything in the cloud, including photos, documents, music and videos

Cloud services have really taken off in the last couple of years, and are increasingly being used for a wide range of purposes. You can easily join in the fun and get the benefits of cloud services on your Android smartphone or tablet. With a few free apps, you can become a part of the ongoing cloud revolution.

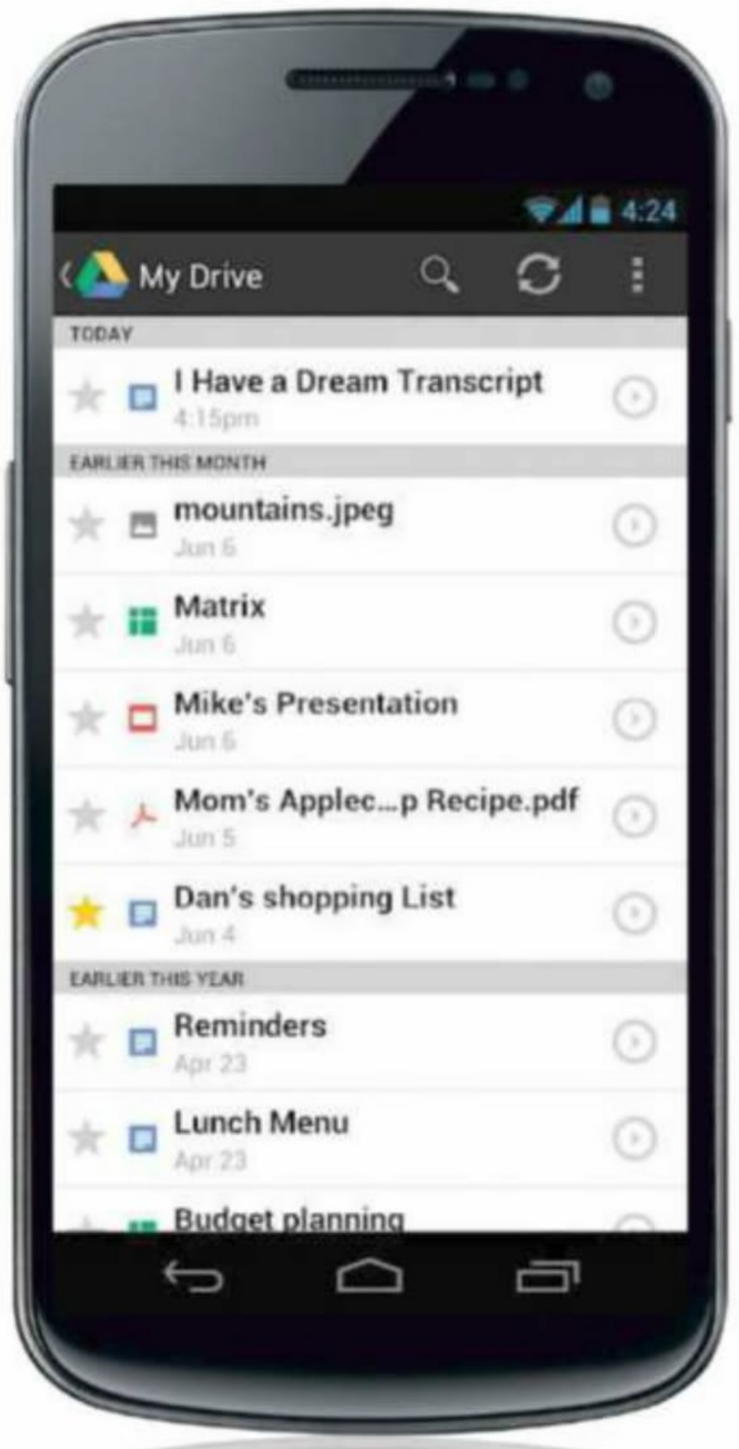
When people talk about using the cloud, they simply mean using the internet instead of a local computer or device. For example, instead of storing files locally on a phone or tablet, they can be stored on the internet. There are many companies offering to store your files, and Google is one of them with its Google Drive facility. This provides 5Gb of online storage space that you can use for any purpose, and its primary use is for Google Docs.

There are some well-respected alternatives, like Dropbox, which is a general purpose online storage service. The nice thing about Dropbox is that it runs on anything, so if you have it on your PC or Mac you can access files stored on it from your Android phone or tablet wirelessly over the internet. Your computer doesn't even need to be switched on because everything is stored in the cloud.

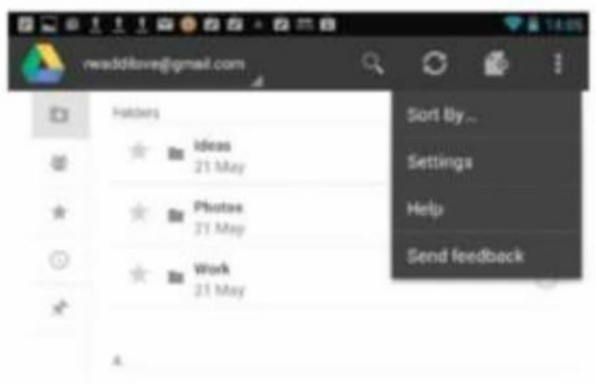
There are some specialised services, too, such as 4Shared, which offers 15Gb of online storage, and is a great place to store your music. With the 4Shared Music app, you can also play music without having to download it, as it streams from the online storage when you want to listen to it. Just upload your entire music collection from your computer, and you can play it from anywhere.

There is no need to carry around lots of music, videos and other files, consuming the device's memory when you can store files online. This is very useful for phones and tablets with limited memory. In fact, it removes the limitation completely because you can store tens of gigabytes online.

Printing might appear to be a problem for mobile phones and tablets, but thanks to Google Cloud Print you can print anywhere from anything. If you're in Starbucks and need to print an email, you can do it right there, and it will be waiting when you get back home or to the office. Handheld mobile devices are ideal for cloud services, so sign up and download the apps. Everything here is free, and it works great on a wide range of devices.



Use Google Drive | There is more to Google Drive than online storage space

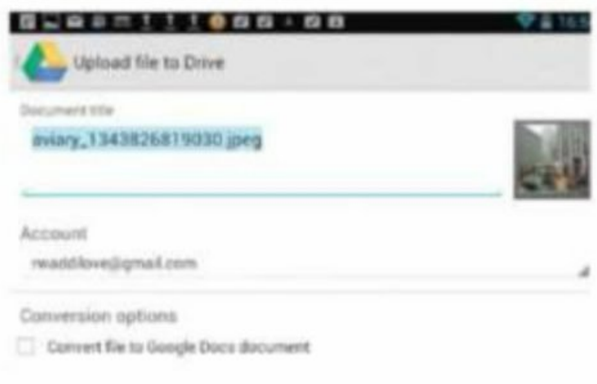


Install Google Drive

Google Drive is relatively new, so if you don't have it on your phone or tablet, install it from Google Play. Tap it to open it, and all your Google Docs and other files are displayed. Use the menu to sort through them.

Create new documents

Tap an existing document to view or edit it. Tap the New Document icon, and you can create a word document, a spreadsheet or upload a file. You can work from virtually anywhere with Google Drive and Docs.



Saving and sharing

Google Drive is available in many other apps that can load, save and share files. In the Aviary photo editor, you can open a photo, tap the share icon at the top, and Google Drive is among the options available.

How safe are my files online?

Most online storage services encrypt their files so no one else can access them without a password. However, you need to log in regularly to keep the account active, or it might be deleted.

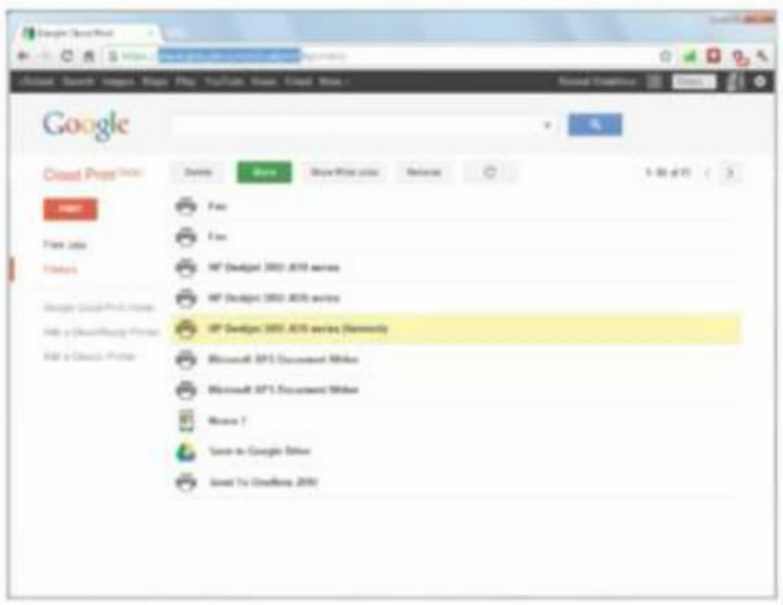
Time needed: 10 minutes **Difficulty:** Beginner

Set up Google Cloud Print

Print from any Android device using the Google Cloud Print service

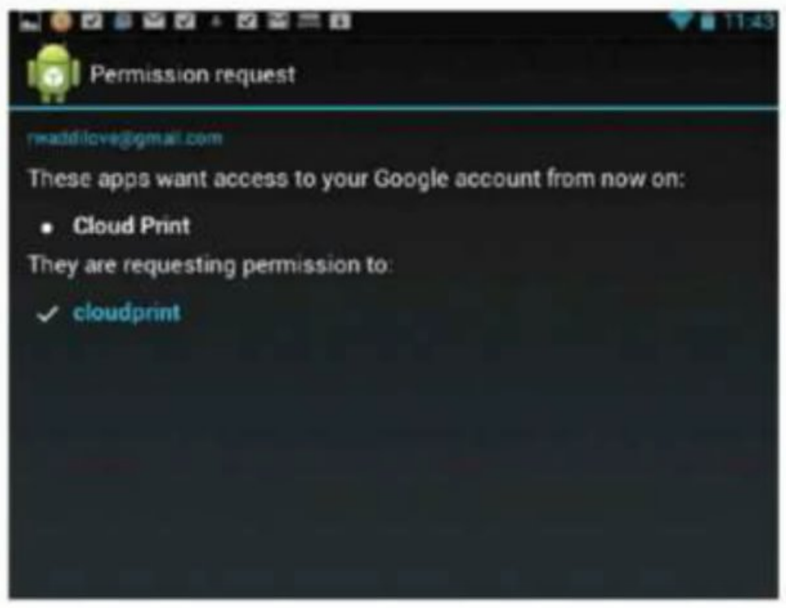
Sooner or later with your Android device, you will need to print something, such as a web page, email and so on. The question is, how do you connect to a printer when the plugs and sockets are so limited? The answer is to use Google Cloud Print. All you need is a computer with a printer and the Chrome web browser. Provided that your computer and printer are switched on, you can print from anywhere wirelessly, or even remotely over the internet from work or Starbucks.

Google Cloud Print | How to set it up



1: Set up Chrome

Start Chrome on the computer with the printer, and click the spanner, followed by Settings. Click Show advanced settings, then Add printers at the bottom of the page. Click Add printers on the next screen, then Manage your printers. It's simpler than it sounds.

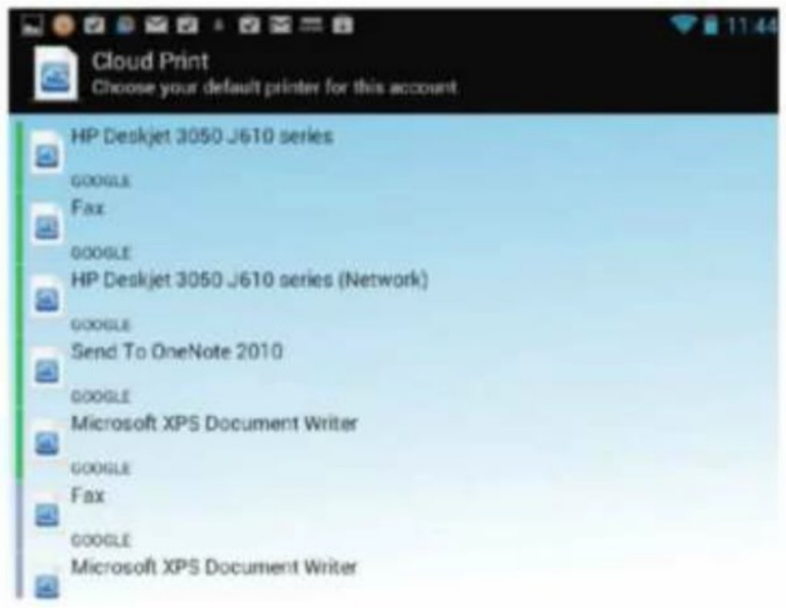


2: Install Cloud Print

Search for Cloud Print in Google Play, and install it on your phone or tablet. Start it, and tap Next on the Welcome screen. Select your Google Account, tap Done, and then agree to let it access your Cloud Print account. The Cloud Print service should now be installed.

3: The printer type

Some types of printer are designed to work with Google Cloud Print with little or no configuration, such as a few select HP and Epson models, but others don't come pre-configured in this manner Choose Other Printers if you are not sure, and continue with the setup.

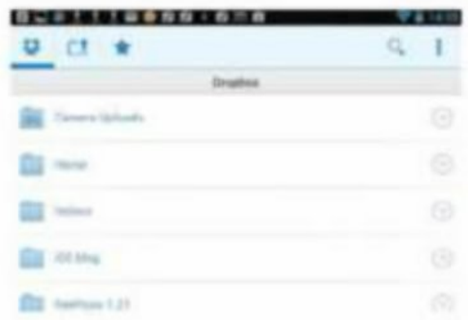


4: Select the device

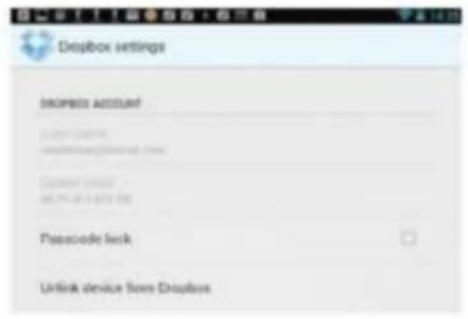
The same list of devices as in Step One on the computer is displayed on the phone or tablet. Select the printer that is to be used, and print out a test page when prompted. If it works then you can now print from any app that supports printing.

Use Dropbox to store photos and files

Dropbox offers storage for computers and devices



Install Dropbox from Google Play, and when you open it, the folders and files on your desktop computer that are running Dropbox will be listed. You can view many file types.



A nice feature of Dropbox is that it automatically uploads the photos you take with your camera. Tap the menu button (three dots) and select Settings. After this, turn on Camera Upload.

Tap the Upload icon at the top, and you will be given the option to upload photos or videos, along with other files of your choice. Select other files, or instead browse for other files to upload.

App used: 4shared Music **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Store your music in the cloud

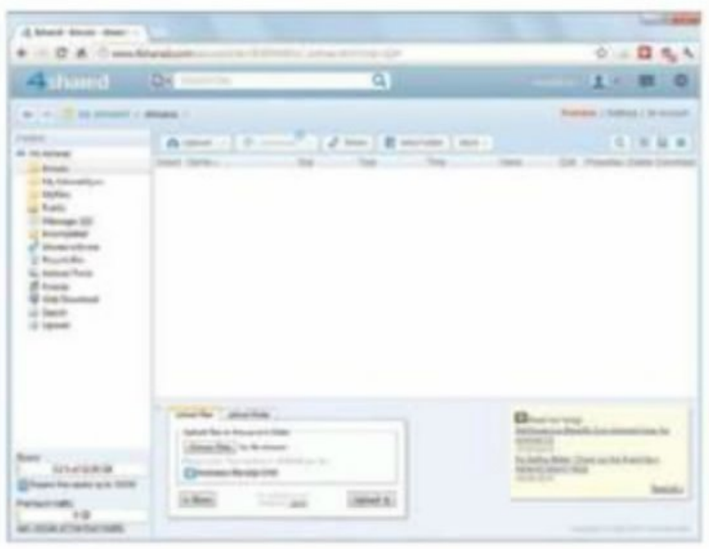
Use online storage for your music and you can play it anywhere on any device

Android phones and tablets are great music players, and mean there is no need to carry around an extra MP3 player.

You already have everything you need to be able to listen to your favourite band. There are lots of good music players for Android, and the main drawback is that there might not be enough memory on the device to fit in all the music you want. Some phones and tables don't have a lot of memory, and the solution is to store your music online and stream it instead.

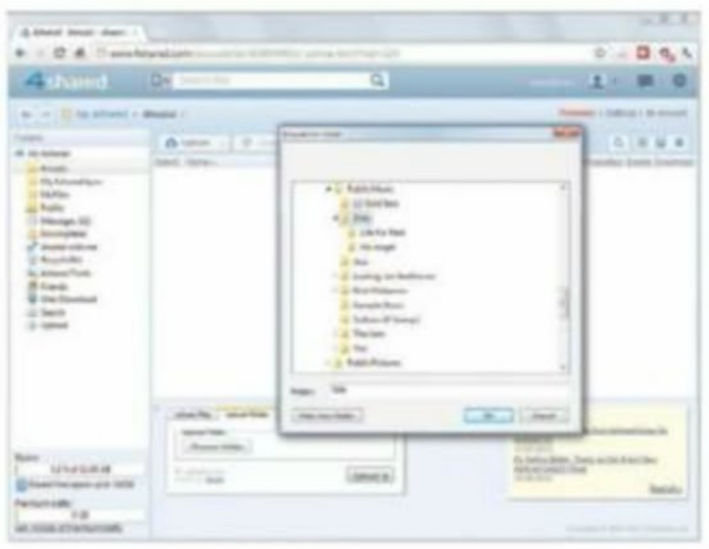
There are lots of services that provide online storage, and there is Google Drive, of course, but that won't allow you to play music without downloading it. You need one that is specifically designed for streaming music, and for this tutorial we have selected 4shared Music. Go to the **www.4shared.com** website and sign up for a free account. You get 10Gb of online storage space, and you can unload as many files as will fit in the space. It supports mp3, ogg, wav and MIDI music files, so is pretty versatile.

Using 4shared Music | Store your tunes online



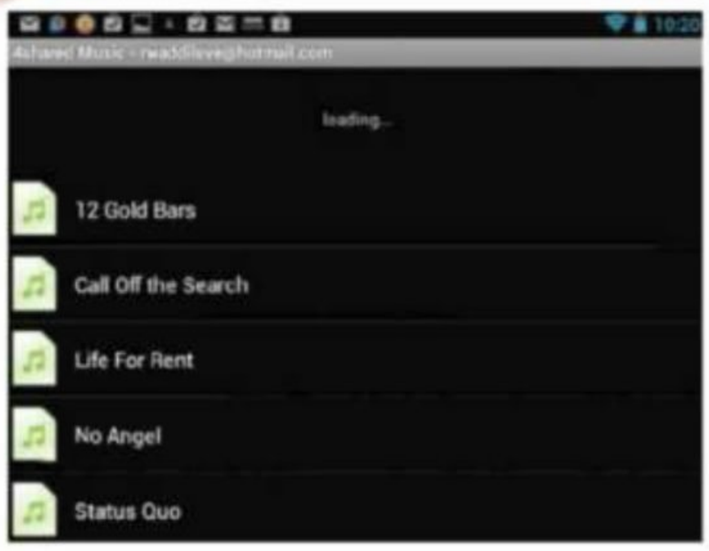
1: Your 4shared account

Use a web browser on your desktop computer to go to **4shared.com** and sign up, then sign in. A list of ready-made folders is displayed on the left, and there is one for music. Now to upload some music files.



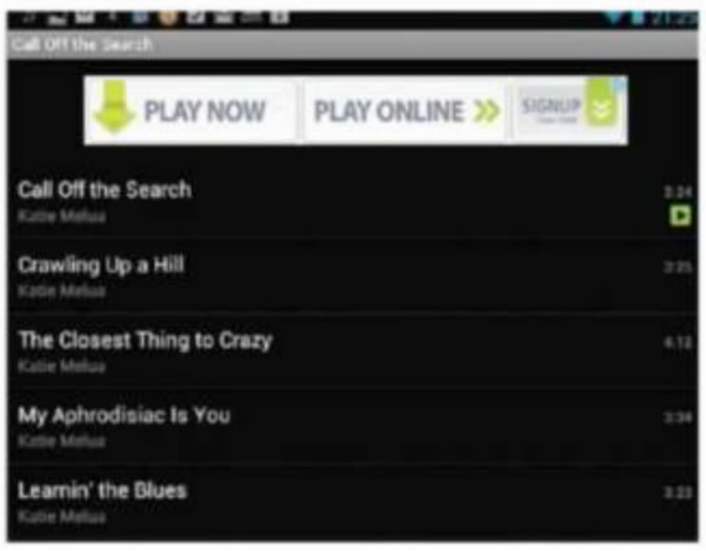
2: Upload your music

Individual files or whole folders can be uploaded. We have selected the Upload Folder option at the bottom. Clicking Choose Folder enables a folder of MP3 files to be uploaded to the online storage. Save it in 4music.



3: Start 4shared Music

You need to search for 4shared Music in Google Play and install it. Start the app and use the same username and password as with the 4shared website. You will then see the music you uploaded and stored online.



4: List the tracks

It is useful to name the folders online after the album name to make finding music easier. Tap an album folder to select it, and all the tracks will be listed. The track and artist text is taken from the MP3 files.

5: Play your music

Tap a track to start it playing and a control panel will appear at the bottom showing the current position, pause and jump to start or end buttons. Tap the three dots in the bottom right to create a playlist and add a track.

Time needed: 2 minutes **Difficulty:** Beginner

Access your Mozy backups

Use the Android Mozy app to browse the contents of PC and Mac backups

Mozy is an online backup service that stores your files in the cloud. It runs on PC and Mac, and is very useful for backing up documents, images, videos and music. Free and paid accounts are available at **www.mozy.co.uk**, so sign up, download the software to your computer and start backing up. The free Mozy Android app enables you to access the backups, which means you can access all the important files that have been uploaded from a phone or tablet. Files can be downloaded onto the device if necessary, and common file types can be viewed. Movies and music that have been backed up online can be downloaded and played on the device, making it useful for watching and listening on the go.

1: Install Mozy

Go to Google Play, search for Mozy and install it. The first time you use it you will need to sign in with the same username and password that you used on your computer (it assumes that you already have an account).

2: The main menu

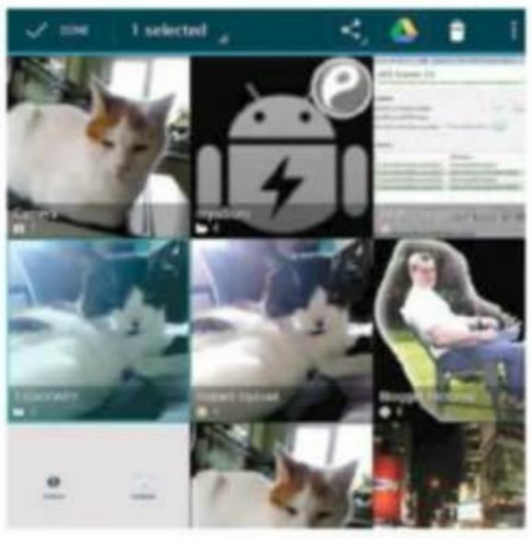
This is the home screen, and it provides you with access to your photos, documents, music and videos. The Recent icon lists files in date order, with the most recent first, and Downloaded shows the files you have saved to the device.

3: Explore your files

Select one of the home screen icons, and the display will vary depending on the content. With documents, you just get a file listing, but with photos you can view them as thumbnail images. High resolution images can be displayed, too.

Backup and Restore

Make sure your device is backed up to your account



Some items on your phone or tablet are backed up automatically, like email, but others aren't, such as photos. In the Gallery, tap the menu (three dots) icon, tap Select Album then the albums you need to back up.

After selecting the albums on your phone or tablet, tap the Google Drive icon, and the photos will be listed on the next page. Tap OK to copy them to your online storage space, where they will be safely backed up.

Tap the menu icon to list all the apps, and press Settings. Go to Backup and reset. Make sure these options are ticked. The first backs up browser bookmarks, Wi-Fi passwords and so on, and the second backs up the app settings.

If you reset or repair the device, when you switch it on and enter your Google Account there is an option to restore everything. Afterwards, go to the store, tap My Apps, swipe left and you can reinstall all the apps you had.

Travelling

Travelling can be a stressful experience, but it needn't be if you have your Android to hand…

The very nature of mobile phones – primarily their portability – make them a wonderful addition for any trip or holiday. They are lightweight, versatile and small enough to pop in a pocket. By having one with you as you travel, you can forget about having to carry maps and guide books. Google Maps and the plethora of travel guide apps and websites will more than replace them.

But there is so much more that you can do to ensure a great trip. There are apps which let you check train timetables no matter where you are and they do it in real-time so that you can be kept in the loop if there are cancellations or delays. You can translate foreign menus into English with the greatest of ease – all you have to do is point your phone's camera at them. And you can keep a full log of your entire journey and ensure that you have all of your vital documents and information to hand. It sure beats a rucksack brimming over with translation books, timetables and diaries.

Your Android smartphone also benefits from having GPS built-in, which ensures that you never become lost and will always be able to find a good bar or restaurant nearby. You can also use it to convert currency (the FX Currency Guide is a brilliant app, for example) and check what the weather will be like before you get to your destination.

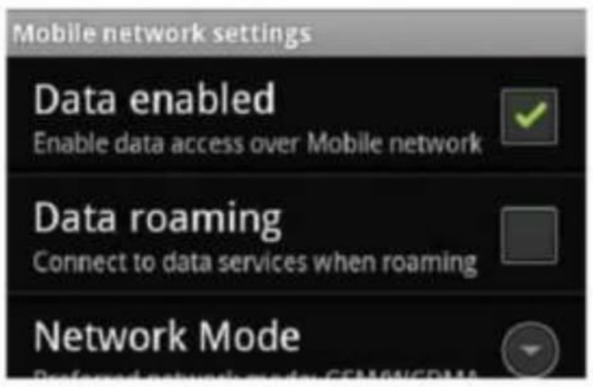
Spending a few moments on the Google Play app store can make all the difference, and over the next few pages, we highlight some of the ways in which you can make your trip more pleasurable. Some apps are a given – have a Kindle app on your Android phone and you can whittle away the long hours of travelling with a good book. Flight apps are also useful for checking whether your plane is due on time (and equally handy for those who are picking you up from the airport) or going to be running late. And, of course, you can use your mobile phone to see whether the hotel you are searching for is suitable enough for your weary head before you check in. Trip Advisor may have its knockers, but it remains an essential destination for travellers.

About the only thing your Android smartphone's apps won't be able to do is pack your suitcases for you, but there are even clever apps out there that will ensure you won't forget vital luggage items and ruin your trip. And, finally, there is something else you can do, something really far-fetched – make calls. You can use that to let friends and family know you've arrived safely at your destination.

Turning off data roaming | Don't rack up a huge data bill abroad

Go to Settings

Press the Menu key on your Android smartphone and tap on the Settings option. You will see a list of options in a drop-down menu. The one you want will be named Wireless controls or Wireless & networks.



Find mobile networks

You will need to scroll down until you find the option for Mobile networks. This lets you set options for roaming and for networks. Tap this and you will be able to check if data roaming is off. If not, turn it off.

Want roaming on?

If you decide you want roaming on, just tick the box next to Data Roaming. The phone will then search for a network. Beware that it can cost a small fortune. Look to purchase a local SIM-card instead.

What is GPS?

GPS stands for Global Positioning System, and is a navigation system based on 24 satellites orbiting the earth. A GPS receiver needs to use at least three satellites to calculate a precise location (a process called triangulation).

App used: Railteam Mobile **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Check train timetables

Never miss a train again with the Railteam Mobile app

There are many train timetable apps for Android. One of the most popular is thetrainline, which not only lets you see what time trains depart and arrive in the UK, but gives you the prices and an ability to book. Other apps, such as British Rail or Rail Planner Live, also work incredibly well. But if you want an app which not only caters for the UK but for Europe as well, then Railteam Mobile is brilliant. It displays live info on timetables across the continent, as well as delays, cancellations and even platform changes.

Railteam Mobile | Train times for all of Europe

1: Download the app

If you are looking to travel in the UK and mainland Europe, then Railteam Mobile is a smart choice. Download it from the Google Play app store. You will see a From and To box when you launch the app. Type in where you want to go from, and your chosen destination.

2: Set date and time

Click on the section displaying the date and time to make changes to it. You can also tell Railteam Mobile whether or not your time is when you want to arrive or depart. By clicking on the Extended option, you can choose go travel via another town or city.

3: Choose transport method

Under the Extended menu, you can also choose your Means of transport. This lets you select or deselect certain types of trains. Removing high speed options, for instance, could save you money. Once you've finalised this, press Search and let the app search for your times.

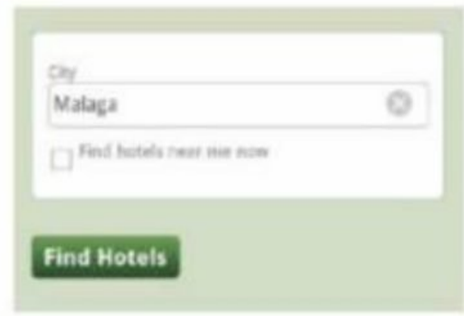
4: Browsing times

A list of times and trains will appear. You can select the one you want by tapping it. There are options to display a map of your route and, by tapping the name of a station, you can also view a surrounding map and a timetable from that location. This is a great extra feature.

Search for hotels with TripAdvisor

Leave nothing to chance when you book your next hotel getaway

When you launch the free TripAdvisor app for the first time, you see a list of options. This includes restaurants, flights and things to do. We want Hotels so choose this.



Type your destination into the available textbox or select the option to find a hotel near you. Tap Find Hotels. The app will then bring up a list that matches your search criteria.

Use the Sort + Filter options to show results by rating or price. Tapping a hotel will display user-submitted reviews. You can also view photos and save the hotel for later reference.

App used: TripIt Travel Organizer **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Organise your holiday admin with TripIt

Keep all your flight transfers, hotel bookings and other travel documents in one handy app

Being able to keep all your travel documents in one place is a godsend and you soon see why this is a good idea the moment you start scouring your inbox for important details such as flight numbers and hotel addresses and you discover you just can't place them all.

TripIt lets you organise everything within its app, keeping all the relevant information handy. You simply forward your travel emails, be they flight, hotel, insurance, car rental and so on to TripIt and the app does the rest for you. All you then have to do is open the TripIt app and you will see everything you need to ensure your holiday admin is smooth and stress free.

You can set up trips on your phone and use it as a great receiver unit – the place you look to for all of your information when you're at the airport, train station or ferry terminal. But the app and the TripIt web service work incredibly well together and once you have a trip set up, you'll soon start seeing your documents build up.

Using TripIt | Set up an account and add a trip

1: Set up an account

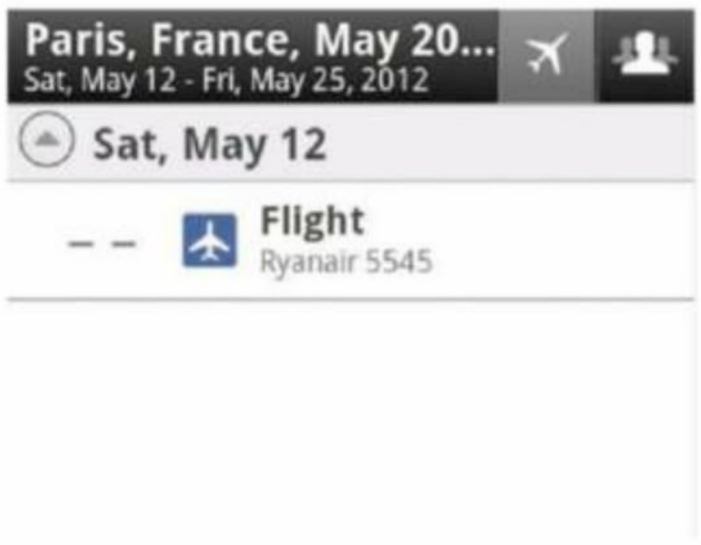
Firstly, download the TripIt app from the Google Play store. When you first use the app, you will need to create an account unless you already have one. Either Sign In or click on Create an Account to go to the next screen where you will input an email and password.

2: Set Up Auto Import

You can do one of two things – message confirmation emails direct to the given email address or Set Up Auto Import. This will subsequently ask you for an email address. TripIt will then be authorised to look through your inbox multiple times a day for trip info.

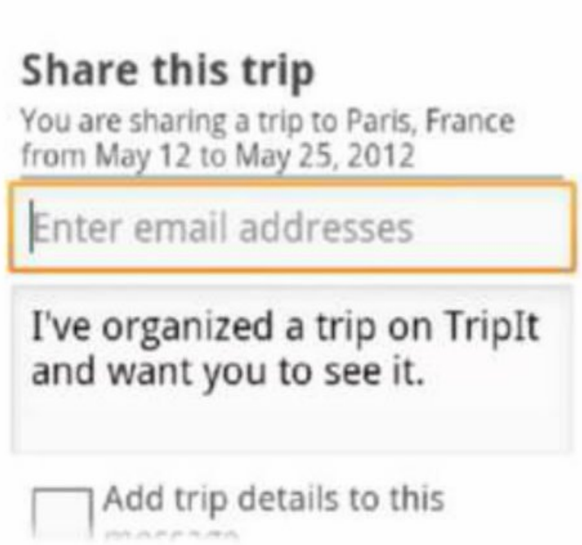
3: Add a trip

Press the Menu button on your phone and select Add Trip to begin organising your itineraries. Fill in your destination and the holiday start and end dates. By sending documents to the email or auto importing, this itinerary will be populated.



4: Viewing documents

Once you start sending details over, you will be able to view them on your app. Tapping on one of the listings will open it up so that you can see more of it. As you bring your trip together, this will become more populated. You can even add notes to your entries.



5: Share a trip

Tap on a trip and then press the Menu button on your phone again. You can now share your trip by tapping the Share button. You enter the email address of the person you are sharing with, together with a message. Choose if you want to add trip details too.

Create your own journal

Let Trip Journal give your once-in-a-lifetime trip the multimedia diary it deserves

App used: Trip Journal **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Trip Journal ensures that every step of your journey can be retained for future reference, combining a map with images and notes to let you build up a log of your holiday.

As well as being able to share your trip via Facebook, Flickr, Twitter and more, the app automatically works out where you are, how far you've travelled and the time of day. When this is combined with images, video, comments and blog entries, it forms a perfect medium for jogging memories for years to come.

Tracking your location also doubles up as a safety tool. By letting friends and family know where you are, they can be alerted to any potential problems. We show you how to get started.

1: Create a New Trip

Download the app from Google Play. To begin a new journal, tap on the New Trip icon to be taken to a map of your current location. Change the title to one that reflects your own holiday, 'Our Hawaii Honeymoon' for instance.

2: Adding content

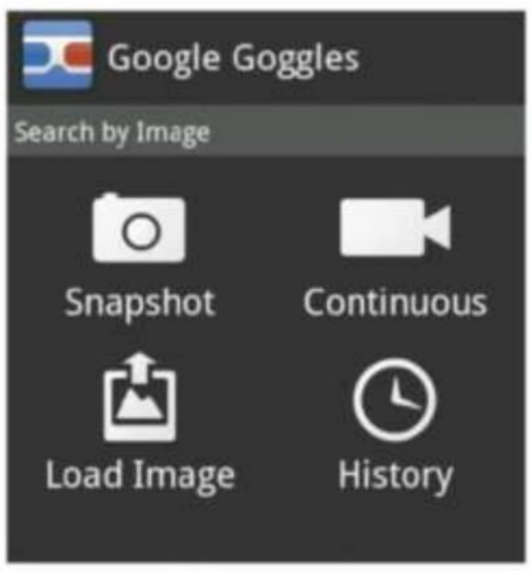
You are now given three options to choose from: add Media, Places and Notes. Tapping Media will bring up your smartphone's camera. You can then take photos which will be placed within your new journal.

3: Notes and Places

Tapping on Notes will let you add a text entry to your journal, much like a traditional diary entry. Place sets specific waypoints that builds up to a comprehensive, step-by-step overview of your special trip.

Translate printed text

Never be left scratching your head and wondering what a word means with Google Goggles



Select the Snapshot option from the top-left of Google Goggles main menu. You will then be taken to the camera on your Android smartphone. Now you need to point your phone at the word or phrase you want the app to translate for you.

In the bottom-right corner of the next screen, you will see a region of interest button. This will allow you to draw a rectangle box around a specific word. Use this to highlight a word or phrase and press the Shutter button to move on to the next step.

The app will then take a photograph of the text that you have highlighted. It will begin scanning the text before looking for a suitable match. In our example, 'Soupe à l'oignon' has been correctly translated back in to English as 'Onion Soup'.

When you tap on the translated result, you can not only see the translation on a full page, but Google Goggles will also perform a web search. This will bring up entries that relate to that key word or phrase that you highlighted at the beginning.

Business

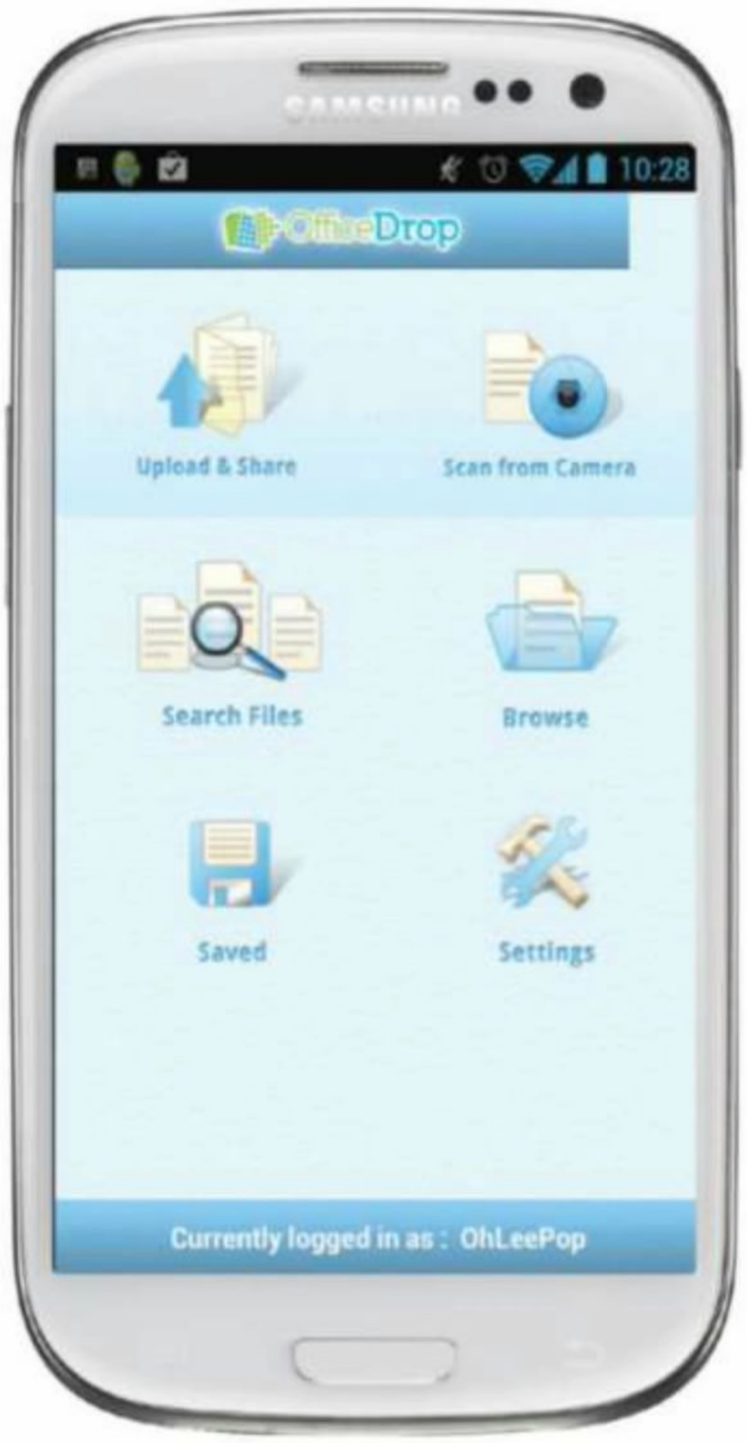
Keep your work in check by using your Android device to create documents, spreadsheets and presentations

Smartphones are increasingly becoming a major part of our everyday lives. Not only do we use them to stay in contact with our friends and family, we can also use them for browsing the internet, playing games, and using them as a media hub. Android devices can also be used as a palm-sized substitute for your office space, allowing you to create and edit a series of documents, spreadsheets and presentations.

Office suites are becoming more common on the Google Play store, and although they're a costly investment, they've plenty of features for you to create professional-looking documents. They also act as a great way to make last minute changes to files – especially useful if you're about to go in to an important meeting with your boss or a client.

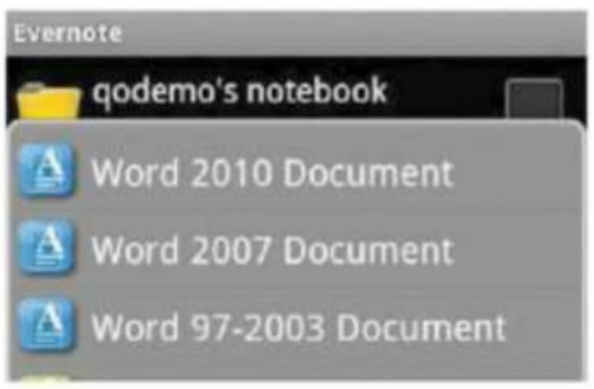
Although they might not include as much as desktop office suites, they've enough to warrant some minor edits, and offer an easy way for you to create documents wherever you're in the world. With the rise in cloud storage apps, plenty of office suites now include instant uploading to the cloud, meaning you can access your files anytime, anywhere. One app in particular that exemplifies this is the partnership between Google Drive and Docs. Google Drive now has its Docs app built in to it, offering users the chance to create documents, spreadsheets and PowerPoint presentations, before having them automatically uploaded to the cloud and their Google Drive account, a welcome service.

In this guide we'll be covering a whole range of fundamental techniques to help you improve how you use your office suite, as well as uncovering a few features you may not have seen before. We'll first show you how to move your images around in a document to add something visual to a boring block of text. Next we'll show you how you scan your printed documents on to your device using the very clever OfficeDrop app. We'll then cover PowerPoint presentations, and show you how you can get started with them, as well as how you can create lists in Google Docs. Our final tutorial will show what to do with your finished products by guiding you through the process of creating PDF files.



"Android devices can be used as a palm-sized substitute for your office space"

The best alternatives | Document-creation apps to keep on top of your work

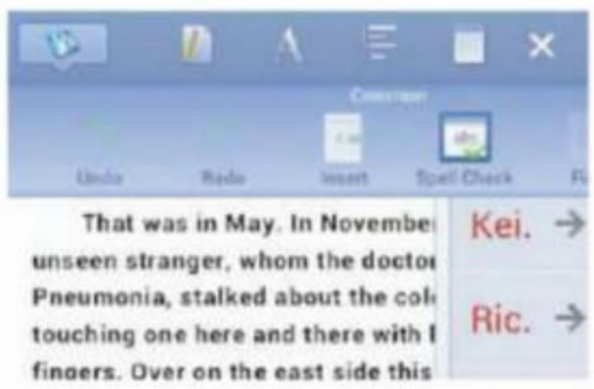


QuickOffice Pro

QuickOffice Pro is compatible with a whole host of file formats, meaning it's the ultimate app in terms of creating and editing documents, spreadsheets and presentations. It does include a hefty price tag though (£10.49/$14.99).

Documents To Go

Not only can you undertake some basic editing within Documents To Go, you can also share your documents with your contacts, and upload them instantly to Dropbox and other similar cloud-based storage applications.



Kingsoft Office

On the outside Kingsoft is far more basic when compared to its competitors, meaning it's the perfect app for people who are still getting used to their Android phone and can do with just the basic features.

What's the quickest way to transfer files to my Android device?

Try uploading them to a cloud storage app, like Google Drive. It's free and you'll also be able to access them over several devices.

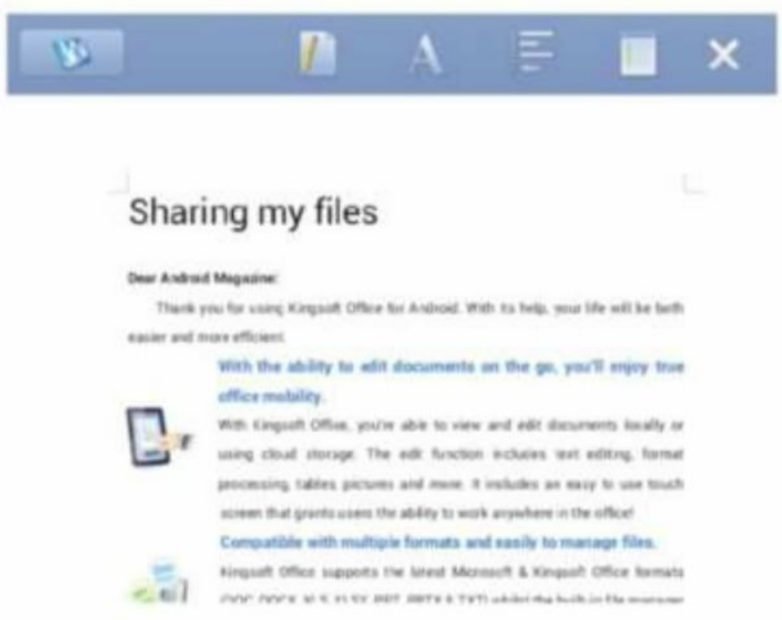
App used: Kingsoft Office **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Move images around work docs

Create an attractive document with a few image tweaks

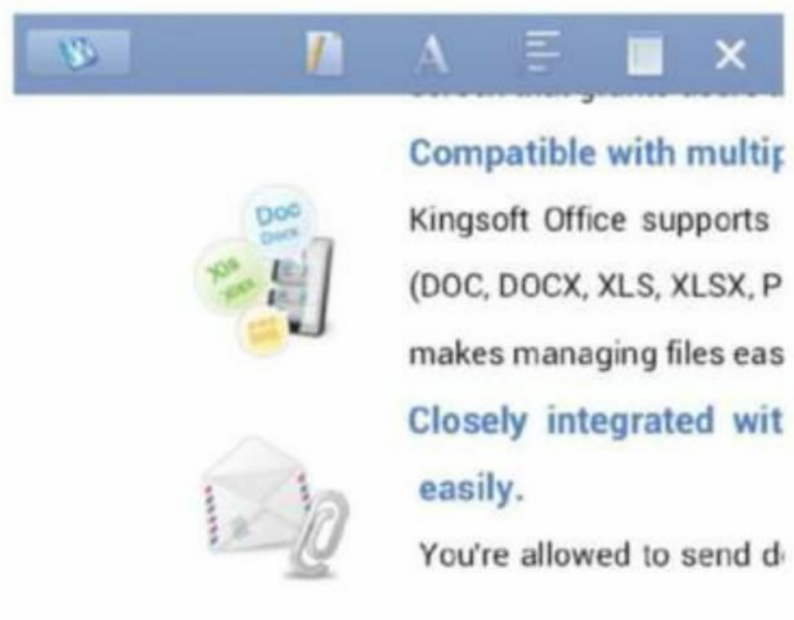
Documents can look bland and boring with just words on a page. Adding images to a document adds a strong visual element and breaks up the text. When you import an image in to a document, you might find the app formats it in a weird way, often leaving the image in an odd location. Using the Kingsoft Office app, you can easily alter the location of your images, and even resize them for a better fit. Follow this tutorial and you'll be creating visually exciting documents in no time at all.

Kingsoft Office | Make your work docs more visually dynamic



1: Open a document

Moving images in a document is a fairly easy process once you've got all the images you need. Construct your document by adding all the text you want, and then by importing all the necessary images. After doing this you're ready to start moving the images around.



2: Zoom in further

To start moving an image you will first need to squeeze two fingers together on your screen to zoom in closely on a specific part of the document. From here you can select any image you want to move around without accidentally selecting a different image.

3: Select an image

You can select an image by simply pressing it. Blue dots will appear around the edge of the image to show it has been selected. Zoom out of the document so that you can have full access in moving it, and see how the text formats around your image of choice.

4: Move the image

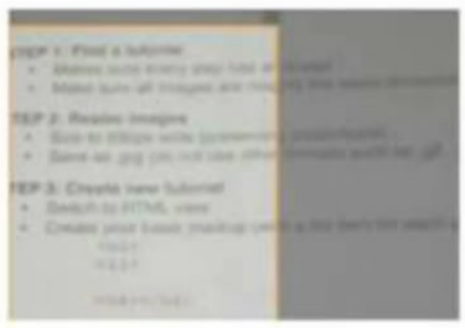
By dragging the image across the screen, you can place it anywhere in your document. As you move, the text will wrap around it, meaning the layout of your document could drastically change. Use the blue dots to resize the image and change the orientation of it.

Scan your docs with OfficeDrop

Upload one of your printed documents by simply scanning this app

Open up the OfficeDrop app on your device and select the Scan from Camera option in the top-right of the app. The camera on your Android device will then open.

You can take a photo of the document either in landscape or portrait mode. Once you've got the document framed to your liking, press the shutter icon to take the photo.



On the next screen you'll be able to crop your image, zoom in on a specific part and give your document a title. After confirming your changes you can now upload and share the document.

App used: Kingsoft Office **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Customise presentations with ease

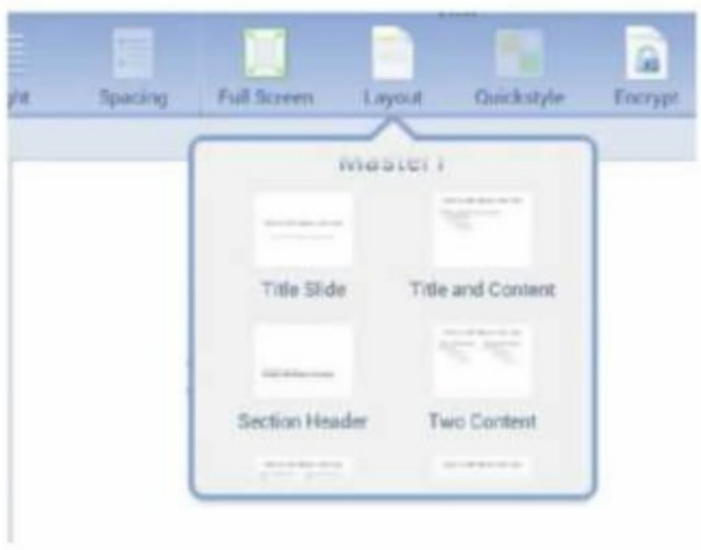
Make an impact in a meeting by giving your presentations a different look

The only thing worse than fluffing your lines while delivering a presentation is to design a poorly made presentation. Luckily the Google Play store has you covered, and there are plenty of options for you to touch-up your presentation before showing it to your boss or new clients.

Most office suites include a compatible presentation editor; although each differs with the level of features they offer. QuickOffice and OfficeSuite both offer a superb presentation editor, but with the level of features that they offer, new users may struggle to find what they're looking for. Therefore for this tutorial we'll be turning our attention to the Kingston Office editor, which will allow for all users to make some simple edits to their presentations, and make them stand out from the crowd.

In this tutorial we'll show you around Kingssoft Office's presentation editor, as well as highlight the icons and tiles that enable you to start applying some edits to your slideshow presentations.

Kingsoft Office | Create and customise presentations



1: Compile your presentation

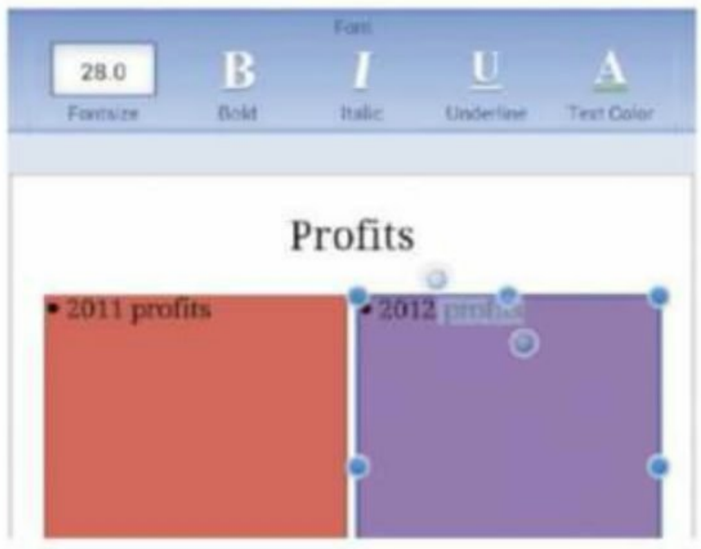
To compile your presentation in Kingsoft Office, add all the text you want, and add as many slides as you need by pressing the '+' button at the bottom of the screen. Each slide can be viewed in landscape mode if you're having trouble seeing it in portrait.

2: Change your layout

Each box on a slide can be resized. Press on the box you want to resize and use the blue dots to change its proportions. Further boxes can be added to a slide by using the toolbar at the top of the app. These boxes can also be resized once they've been added to the slide.

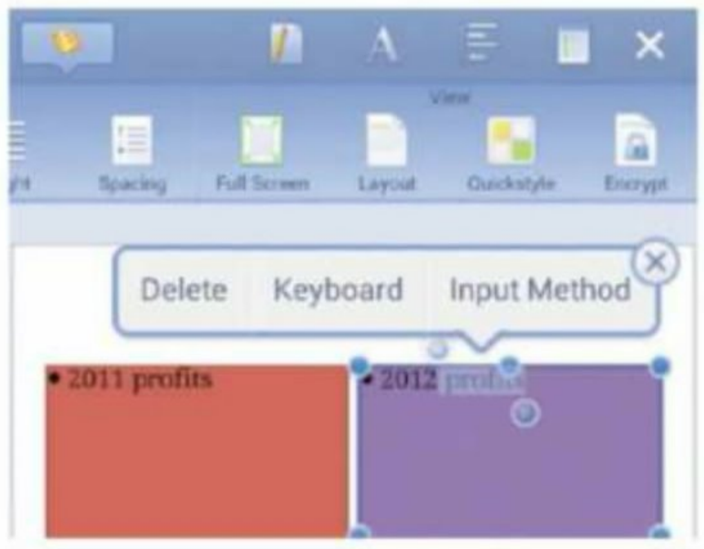
3: Add some colour

Highlight one of the boxes on your slide and press the Quickstyle icon on the toolbar. From here you'll have a variety of editing options. You can choose a fill colour, add a universal colour to your entire presentation, or increase the width of the border around the box.



4: Customise your font

Access the same Quickstyle menu again to change individual words or sentences that are included on the slide. From this menu you can change their colour and size. Further font editing options can be found at the top of the screen by pressing the Text Color icon.



5: Finishing touches

After applying all the tweaks you want, have a quick check over the entire slide to make sure it looks good. By opening the file option from the toolbar you can add images to your slides, and they can be resized in the same way as you would with one of the slide's boxes.

PDF your files for exporting

Save your files from compatibility issues by turning them into PDFs

App used: PowerPoint To PDF **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

You'll find it's a common problem to face compatibility issues when sending your documents, spreadsheets and presentations to people through email. Older versions of certain programs, corrupted files and unrecognisable fonts are just a few reasons why you might run in to compatibility issues.

To save yourself the hassle of having to deal with these issues, you can create Portable Document Format (PDF) copies of your files and distribute them this way. PDFs are far less likely to encounter compatibility issues; although the recipient won't be able to edit the document once they receive the file. Read on as we take you through the very quick process of creating PDFs of your files.

1: Download the app

Download the PowerPoint To PDF app to your device. There are Spreadsheets To PDF and Documents To PDF if you want an app to PDF those formats instead. Press the Select File button to begin the process.

2: Device or SD card?

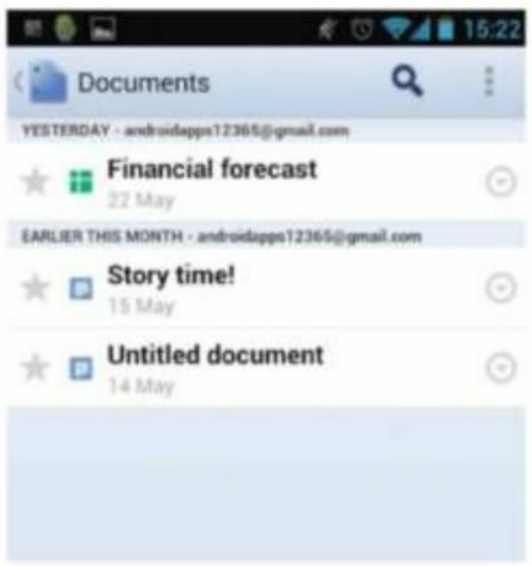
You will then need to identify the location of the file you want to PDF. The app will ask you to select between the Device and SD Card. After selecting the correct option, a new menu will appear showing the contents.

3: Choose a file

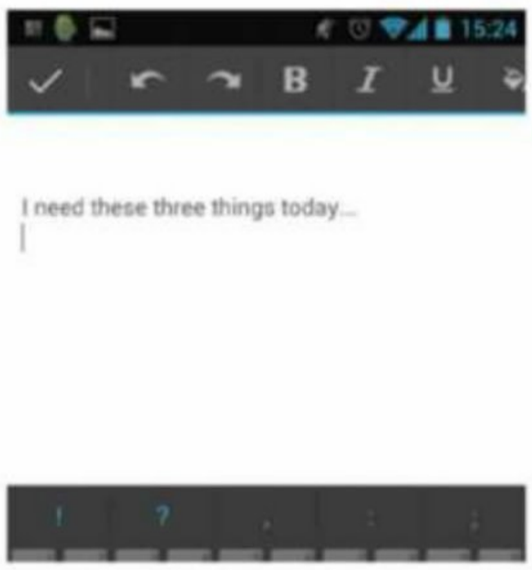
Navigate until you find the right file. Press on the specific file and the PDF creation process will begin instantly. Once you've converted a file to PDF, it'll be saved in the same place as the original file, ready to be emailed.

Create a to-do list in Google Docs

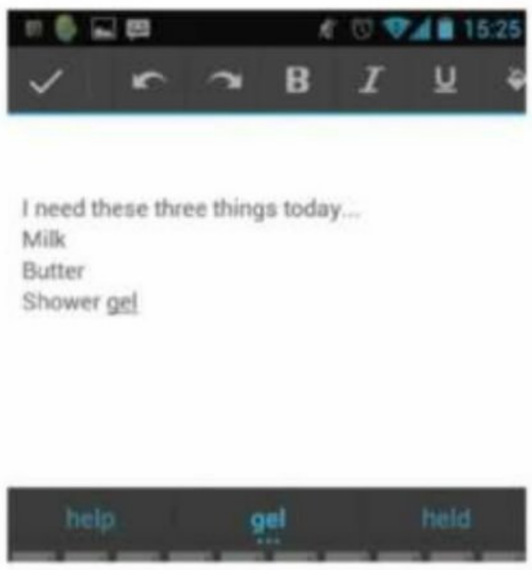
Never forget what you need to do by creating a simple list to reference on the move



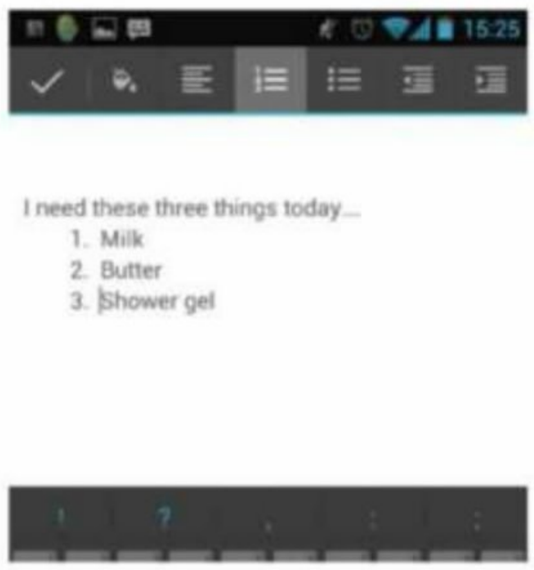
Open up the Google Docs app by going to the Documents section within the Google Drive app. From here, you can choose to edit a current document or create a new one by pressing the Options button in the top-right of the app's interface.



Begin typing out your document using your device's keyboard. To start a new line, indicating another task that needs doing, press the Enter key. Bold, italicise and change the colour of the font using the toolbar for effect or colour coding if you so wish.



As you finish typing out your list, scroll along the toolbar that lines the top of the app. Eventually you'll come across a symbol with numbers down the side of it. By pressing this button you'll add a number to the beginning of every item on your list.



You can add as many items to your list as you want, as long as you start a new line each time. Using the toolbar at the top of the app you can even customise the look of your list. For example, you can change your numbered list to a bullet pointed one, as above.

Security

Enhance the security of your Android device with the custom settings and great apps

Security threats appear to be everywhere these days, with hardly a week going by without some sort of story hitting the headlines, which may prompt you to wonder exactly how safe and protected your Android phone or tablet actually is. In reality, it really is very secure, with there being far fewer malware threats in comparison to desktop computers. You are actually much safer using Android.

Android devices have been built with security in mind, and Android is a custom version of Linux, for which malware and security threats are rare. Applications run in a sandbox, which means that they are isolated from the rest of the system and limited in what they can do. Moreover, permissions determine what they have access to. There's more information for the technically minded at **source.android.com/tech/security/**.

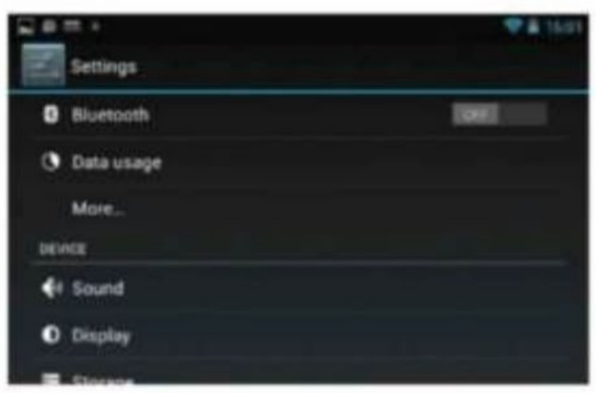
Although Android is safe and secure, no system is perfect. Hackers and malware authors are a devious lot, and are always looking for ways to access your device and the information it contains. Fortunately, there are some simple techniques that will boost the level of security even more and make Android even safer to use.

For example, there are various ways to lock the phone or tablet that would prevent someone who stole the device or found it if you lost it from accessing it. Many people don't lock their device because they find the process of unlocking it inconvenient, but simply adding a PIN or a password is the best way to secure a device from thieves. If the worst happens and you do lose your phone or tablet, you can locate it and either go and get it or inform the police. You can also lock it or erase its contents remotely from another phone or computer, thus making it useless to thieves.

Rogue apps are rare, but not unknown, and you might want to monitor which ones connect to the internet and see how much they are transferring each day. An app that doesn't need internet access would be suspicious if it was seen to be connecting and using a lot of bandwidth. There are facilities within Android to monitor each app's use of the internet, and you can get daily, weekly and monthly reports. The latest version of Android has the best monitoring, but there are apps in Google Play for older phones.

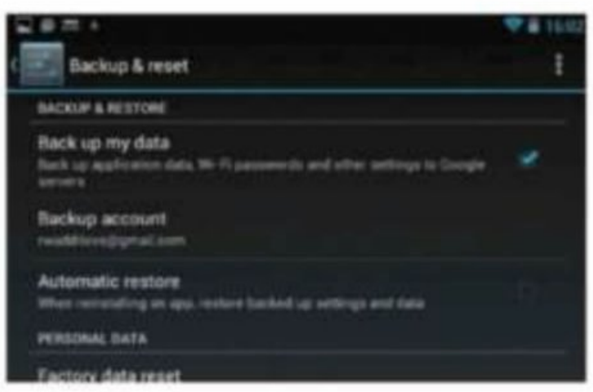
If you sell your device, trade it in for a new one or want to recycle it, what about the private information it contains? Android has this covered, and it is possible to completely wipe the device.

Erase your data | Reset your phone/tablet before selling or disposing of it



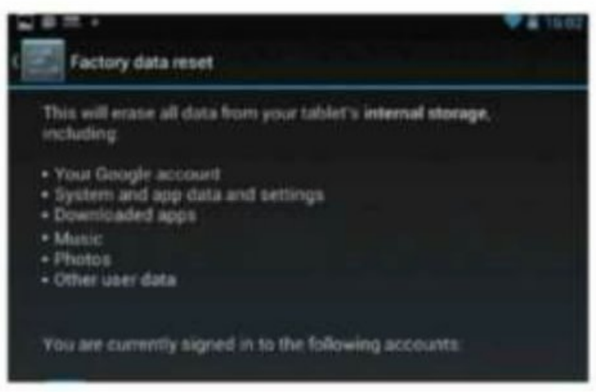
Go to Settings

The reset function is located in Settings. To access this, you can swipe down from the screen and tap the Settings icon or press the middle button (six dots) to show all your apps, and then press Settings.



Backup and reset

Pressing Backup and reset shows this screen. Notice that all the application data, Wi-Fi passwords and settings are backed up. Tick the option if it isn't. Now, you can tap Factory data reset at the bottom.



Are you sure?

This is the last screen you will see before the phone or tablet is erased. Everything is wiped from its memory, including music and photos. If you're sure you don't need anything on the device, tap the Reset button.

There are lots of anti virus apps. If I install the best ones, will my phone be secure?

Don't install more than one. They will consume more power, and may conflict with each other. Choose one app with a 4+ rating.

Time needed: 5 minutes Difficulty: Beginner

Monitor internet connections

Track which apps use the internet and the bandwidth they use

In this short tutorial we will show you how to access the internet usage statistics that are collected by the latest version of Android. You can see which apps access the internet and how much data they have transferred. Statistics for different time periods are available, such as the data transferred in the last month, week or day. Keep an eye out for rogue apps that are using the internet unnecessarily or consuming too much bandwidth – you might want to stop them running.

Functions | View your internet usage statistics

1: Data usage information

The data usage information is accessed through Settings, so press the centre icon (six dots) in order to list all the apps, and then tap Settings. Look through the menu items for one labelled Data usage. It will be in the Wireless and Networks section.

2: View the apps

The last four weeks' usage is displayed in the chart at the top, and beneath is the amount of data that each app has transferred in decreasing order. A tablet may only have wireless data, but a phone will have 3G, too. Swipe up in order to view the rest of the apps.

3: View recent usage

Viewing a month's usage won't show a rogue app installed the day before, but you can narrow down the date displayed. On the chart are two vertical markers. Drag them both as far as they will go to the right. You can then see the apps that have accessed the web.

4: View an app

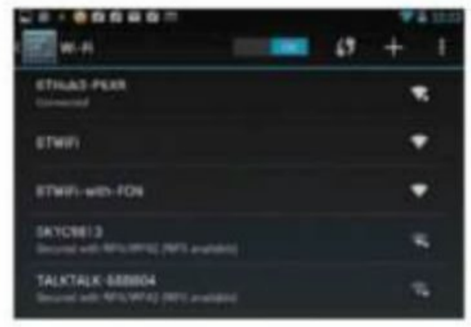
Some apps run in the background, so you may not be aware that they are connecting to the internet. However, there is a way to view this information. Tap one of the apps, and you will see how much of the internet is used running in the foreground and background.

Disable Wi-Fi and Bluetooth connections

They can be security risks. Turn them off

Bluetooth can be useful for hands-free conversations or wireless headsets. However, it is a point of entry for hackers, and switching it off in Settings makes the device more secure.

The device can exchange information with other devices using NFC (Near Field Communication) if they are close together. It is switched off by going to Settings>More and clearing the tick.



Wi-Fi can also be turned off. It is a good idea to only enable it when you need it. It not only increases the security of your device; it also saves the battery power. You can still access the internet using 3G.

App used: Where's My Droid **Price:** Free **Time needed:** 10 minutes **Difficulty:** Intermediate

Install an anti-theft app for protection

Discover the location of your phone/tablet if it has been lost or stolen

Who hasn't lost a mobile phone? When phones were simple and just offered calls and texts it wasn't too bad, but today's smartphones contain a lot of private information about you that could potentially be used by a thief.

Android phones and tablets are configured to access your Google account, and the thief could read your email, contacts, addresses and so on. The device may be set up to purchase goods over the internet or using other methods. You don't want the thief to empty your bank account or fill up with lattes at Starbucks.

What can you do if your phone or tablet is lost? Fortunately, there are services and apps that can help. Using various methods, it is possible to access the device remotely and use GPS to determine exactly where it is. You can also erase the memory, so private information cannot be accessed. It is even possible to lock the device or sound off a siren. In this tutorial, we will be using the Where's My Droid app.

Where's My Droid | Installing the app

1: Install the app

Go to Google Play either on your phone, tablet or computer, and search for Where's My Droid. Install the free app and run it afterwards, then keep tapping Next until you get to this screen. When you get here, tap the Commander button.

2: Connect with Google

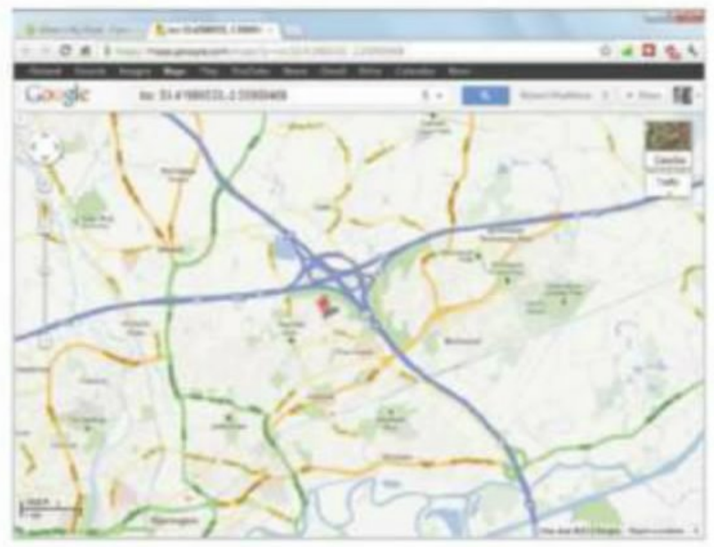
You need to connect Where's My Droid with your Google account. This is straightforward, requiring you only to press the Connect button, select the Google account to use and agree to giving it permission. That's it. Tap the home button to quit.

3: Use the web

If your phone or tablet is lost, use a computer with an internet connection to go to **www.wheresmydroid.com** and click the Commander link at the top of the page. Click the icon on the page to start Commander and link with the device.

4: Lock, locate, wipe

After agreeing to let the service access your Google account, the page should be linked with your device. You can get the status, ring it or locate it using GPS. The Pro version of the app allows you to lock it or completely wipe the memory.



5: Locate the device

We chose to locate the device by clicking the Accurate GPS button. It can take five minutes or more to track it down, so be patient and wait. When the GPS information has been retrieved, click the Open in Google Maps button.

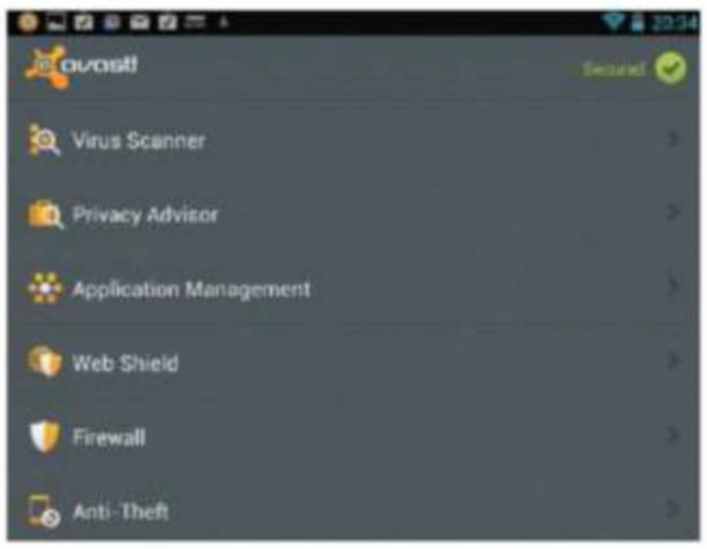
Time needed: 2 minutes **Difficulty:** Beginner

Get anti-virus protection

Just as with desktop PCs, it is important to add anti-virus protection

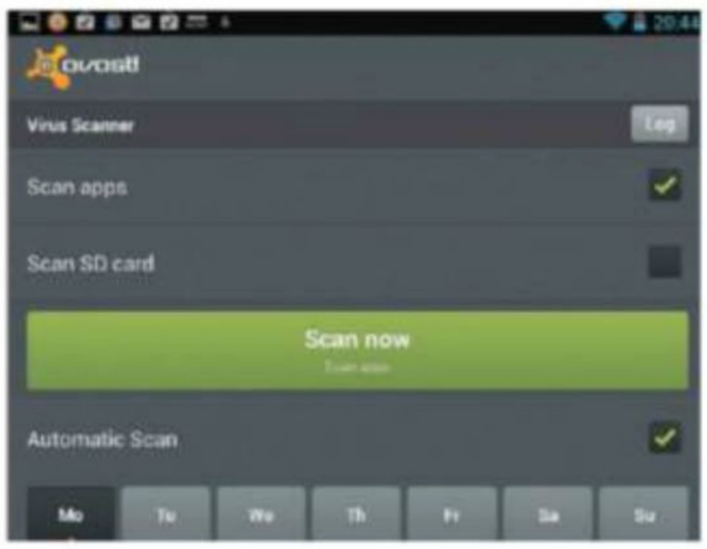
Malware is rare on Android devices compared to desktop computers, but it does exist. You can protect your phone or tablet using an anti-virus app, and there are many to choose from. We selected Avast! Mobile Security because it has some great features – and is free. It is able to scan apps you have installed and perform scheduled scans, check URLs when you are browsing the web and show what information apps have access to. Rooted Android devices can also enable a firewall, which blocks unwanted or unauthorised internet connections. There are anti-theft facilities, application management and more.

Anti- virus software is an essential security component, and everyone should have it on their Android device.



1: Install Avast!

Go to Google Play and search for 'anti virus'. There are plenty of apps to choose from here, some of which are free. We selected Avast! Mobile Security. After installing the app, it will load up and then scan the device before displaying this menu.



2: Scan for viruses

After installing a new app, select Virus Scanner and you can scan the system with the green button to make sure it isn't some form of malware. Tick the Automatic Scan box and then schedule automatic virus scans on any day of the week.

3: Check your apps

Select Application Management on the home screen (Step One), and a list of apps will be displayed. Select an app, and this screen will show the size, memory and CPU usage, as well as what information it can access in the Privacy Info section.

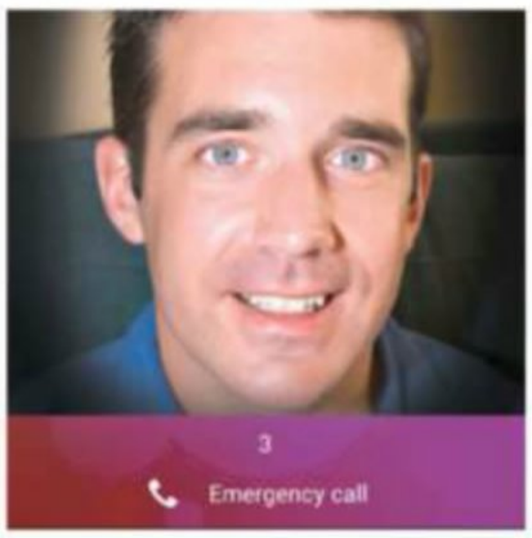
Lock your phone securely

Add a password, PIN, pattern or even your face so no one can access your device except you

To lock your device when it is not being used, go to Settings and tap Security. Tap Screen lock and a list of options is displayed. Old versions of Android won't have newer options like Face Unlock, but will have the others.

Choose the Pattern option, and nine dots will appear on the screen. Tap and drag your finger from dot to dot to create a pattern. These are displayed when you turn on the device – redraw the pattern to unlock it.

If you think you might forget a pattern or someone might guess it, you may prefer the password option. Tap it in Step One, and you will be prompted to enter it. The best passwords are long and have numbers and letters.



For the coolest way to unlock your device, use the face recognition software built into Android 4.1. Select Face Unlock and the camera will capture your face. As a backup, you are asked to create a PIN number as well.

Data usage

Avoid incurring unwanted charges by exceeding your limit with these tips

Nobody likes to get stung by shock data charges, so it is obviously very important to keep an eye on your phone's data consumption to ensure that you stay within your limits.

Mercifully, there are plenty of apps to help – many of which are free. Two apps we will be taking an in-depth look at in this section include 3G Watchdog, which provides at-a-glance info on how much data of your plan you are eating into, and MyDataManager, which breaks your data consumption into detailed graphs and pie-charts so that you can be in no doubt as to how much of your data plan is remaining.

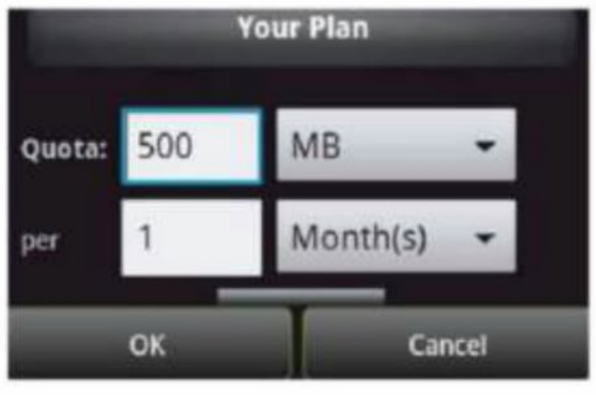
Of course, wherever possible it is best to connect to a Wi-Fi network so that you can stream as much internet content as you want without eating into your monthly internet data allowance, and we have also found a great free app for helping you do that. WiFi Manager will sniff out all free local Wi-Fi networks where you can conduct heavy net-related activity, safe in the knowledge that you aren't going to be charged for exceeding your data plan at the end of it all.

You can enjoy fringe benefits of certain apps offline. Spotify, for example, comes with offline modes so that you can continue to enjoy them regardless of whether or not you have an internet connection. All you have to do is pre-download playlists, flip a switch to go offline, and you'll be able to listen to music, even if you're several metres underground on the metro.

There are some unforeseen acts of data consumption that take place behind the scenes, such as the automatic updating of apps. This can be useful for keeping you updated with the latest versions of the apps, but it should be reserved for Wi-Fi use. However, it will occur automatically without you knowing unless you make a few fine adjustments. If you are using a Samsung Galaxy device then the only way to do this is through Google Play. By launching it and pressing the Menu key to bring up the settings, you'll be able to deactivate auto updates until a time when you are running on Wi-Fi.

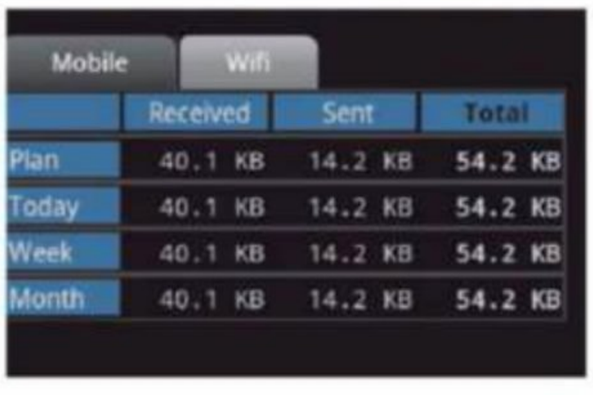
In this section we will provide some tips for conserving your data plan and avoiding incurring excess charges.

Keep an eye on data consumption | Use 3G Watchdog



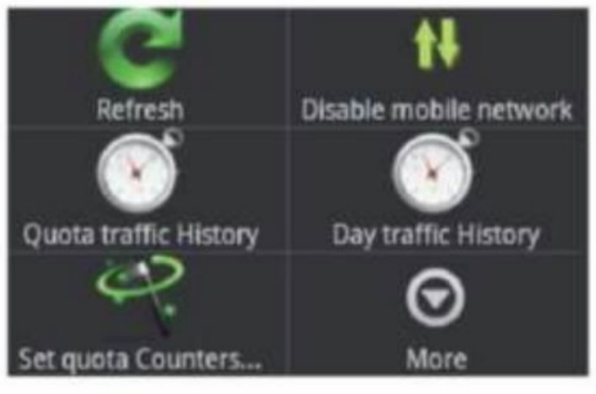
Enter your plan

Enter the relevant information into the fields provided that relate to your data usage plan, which includes your quota of internet use over a specified time frame. Once you have entered the figures, tap 'OK'.



At-a-glance info

Your internet usage will be displayed in an easy-to-read table, and you can switch between your mobile and Wi-Fi usage simply by tapping on the respective tab. To update your info, tap on Settings and review you plan.



Get more options

You can refresh your usage, disable networks, set various parameters and get your full traffic history and much more by tapping the Menu button while on the main display screen of the app.

How do I disable auto app updates?

There may not be a simple solution – on Galaxy devices, for example, you will need to launch the Google Play app, press the Menu key and then go to settings and untick the 'Auto Updates' box.

App used: WiFi Manager **Price:** Free **Time needed:** 5 minutes **Difficulty:** Beginner

Find and use free Wi-Fi

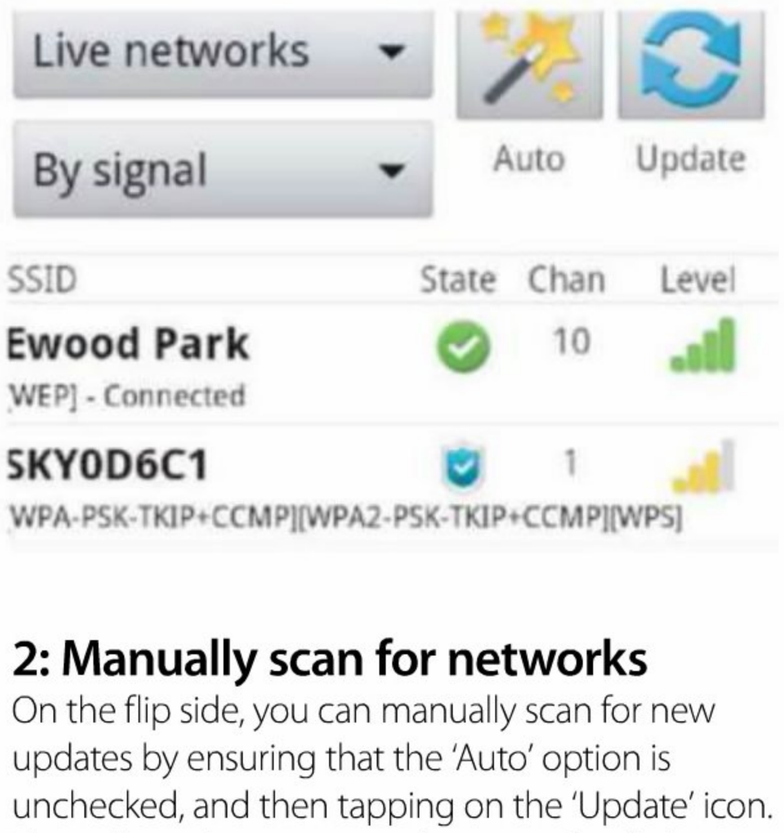
Use the WiFi Manager app to connect to local open networks

Using Wi-Fi obviously means that your mobile data plan remains untouched, so it pays to connect to free Wi-Fi points during your travels. But how do you find them? With apps such as WiFi Manager, that's how. Available for free from Google Play, it helps you connect and manage your Wi-Fi networks and discover open networks. The app constantly scans your surrounds for Wi-Fi activity and presents it as a list. When you find an unsecured network, tap 'Connect'.

Free Wi-Fi | **How to find it**

1: Auto-scan for networks

Launch the app and tap on the 'Auto' button. Once activated, a tick icon will appear over it, and your device will automatically scan for new networks around your current position. Now, whenever you enter the air space of a new network, it will appear in your list.



2: Manually scan for networks

On the flip side, you can manually scan for new updates by ensuring that the 'Auto' option is unchecked, and then tapping on the 'Update' icon. This will conduct an immediate scan for all the available local networks, which will then be presented as a list.

3: View signals on a radar

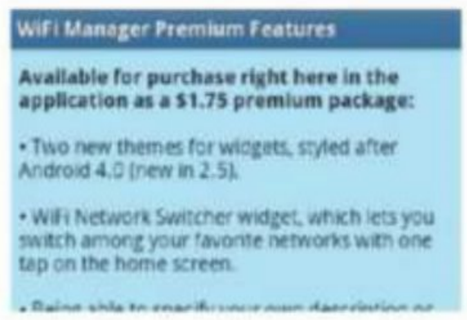
Tap on the Menu key to bring up more options, such as one to view all local networks on a radar based on signal strength, which can be useful if you live in a densely populated area. To revert back to the previous view, simply tap the Menu key and then choose 'List'.

4: Joining networks

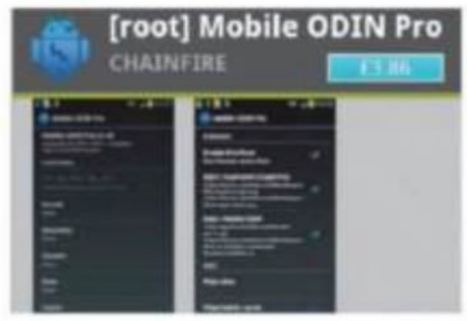
To join a new network, simply tap on its name as it is displayed. If the network is secure then you will need to enter a password in order to access it, but otherwise simply tap on the 'Connect' button, and you will join the network and thus get free Wi-Fi on your device.

Removing ads from apps and web pages

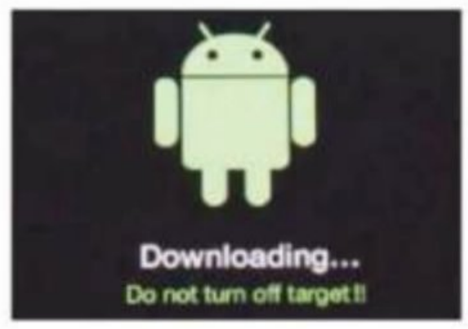
There are a couple of ways to avoid excess adverts



The most obvious way is to pay out for the premium version of the app. Most apps have free and paid-for versions – the latter usually has more features and, crucially, no ads.



The second method of removing ads is to 'root' your device. For this you will need a Windows PC and a program called Odin, which will flash the ClockworkMod recovery to your phone.



You use this to push the Superuser app to your device, which gives you root access. You can then flash ROMS and other things from ClockworkMode if you so wish.

App used: Spotify **Price:** Free **Time needed:** 10 minutes **Difficulty:** Intermediate

Take your apps offline

Enjoy your favourite apps without the need for an internet connection

As wondrous an invention as the internet is, it still isn't quite possible to stay connected at all times, which can be a problem if certain apps rely on it as their primary source of information.

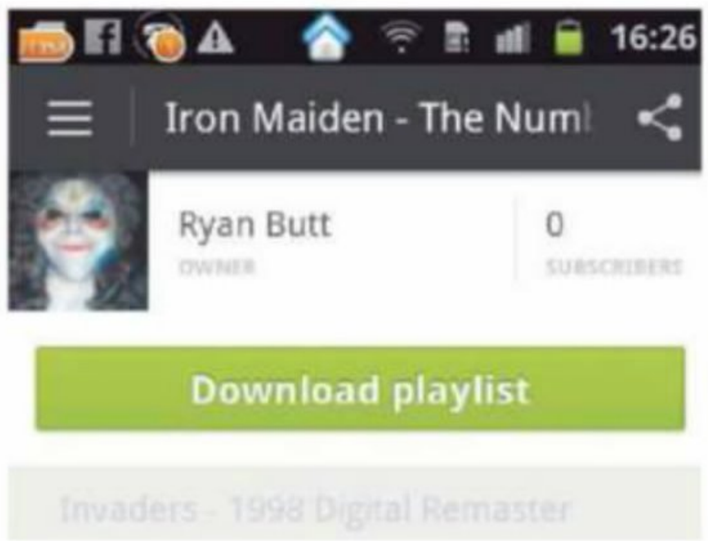
However, certain apps allow you to enjoy limited features without an internet connection, so you can still enjoy at least part of the service even when you're several metres underground riding the metro. Apps such as Maps and Spotify utilise this service (we will be looking in-depth at Spotify for the purpose of this tutorial), which is handy because if you get lost you can get your bearings, listening to some kick-ass musical thumpage as you do so!

To be able to use apps offline, you will usually be required to download something first, so don't just think that you can carry on regardless as soon as an internet connection is lost. In short, get to know your way around each app and discover the exact process required for going offline and how it will affect you.

Playlists | Creating them in Spotify

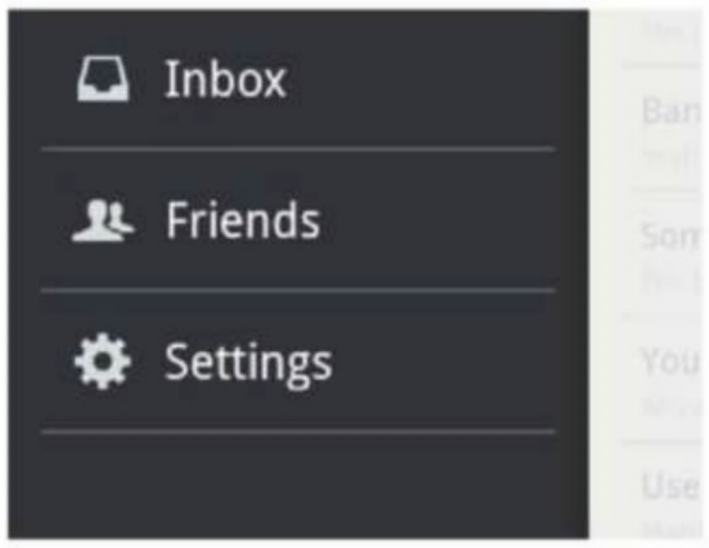
1: Create a playlist

Launch the Spotify app and then press the list icon in the top-left corner of the window to start searching for tracks and artists. You can create a new playlist as easily as selecting an album, pressing the Menu key and then choosing 'Add as playlist'.



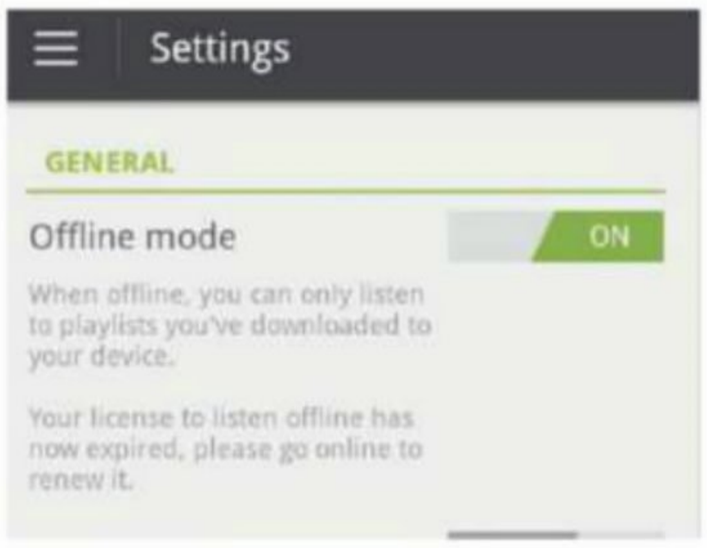
2: Download a playlist

Now, press the list icon again, and this time choose 'Playlists'. Select a playlist from the list, and when it is displayed tap on the 'Download playlist' option to save it to your device. This may take a few seconds depending on the number of tracks.



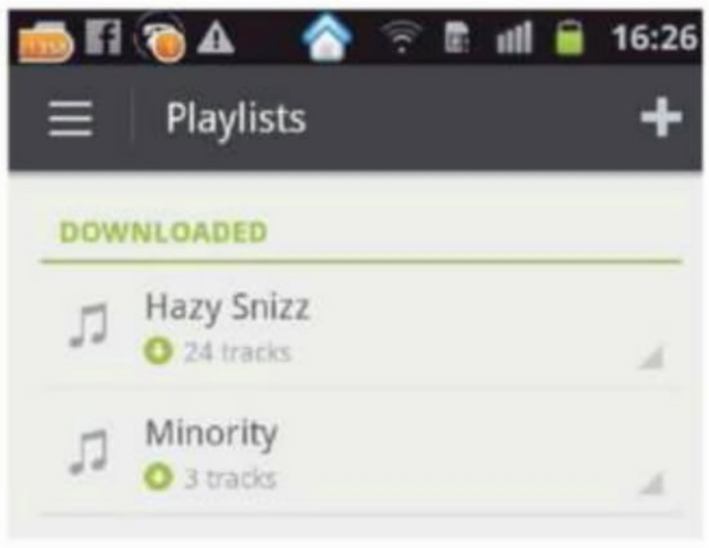
3: Access the settings

While in Spotify, tap on the list icon in the top-left corner of the screen and you will see a list of functions, including Search, Playlists, Inbox and more. The option you need is called 'Settings', and is situated at the bottom of the list.



4: Going offline

Open Settings and, at the top of the page, you will see an option called 'Offline mode'. Tap this, and you will enter offline mode, which makes all of the playlists that you have downloaded available to play without an internet connection.



5: Listening offline

Now, return to your playlists page via the list icon and tap on a downloaded playlist. You can now enjoy the music of Spotify offline, which is especially handy for when you want to listen during a commute when a signal isn't available.

App used: MyDataManger **Price:** Free **Time needed:** 2 minutes **Difficulty:** Beginner

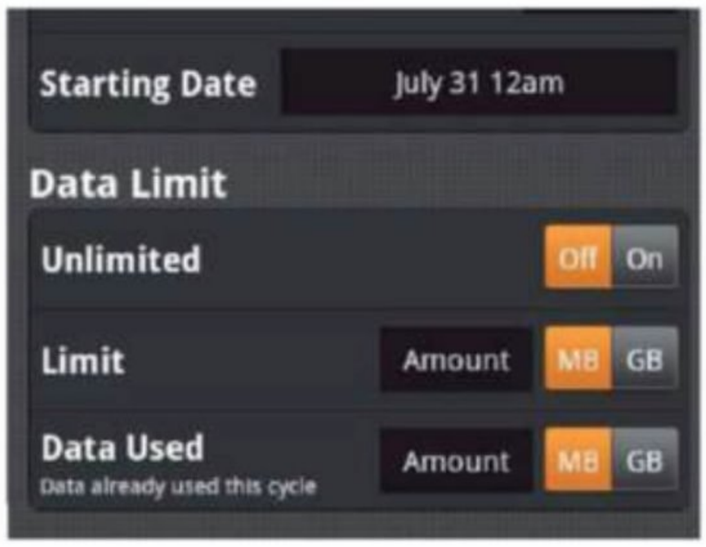
Apps for data management

Track your data usage with a dedicated app, available for free from Google Play

As a lot of us operate on strict data plans for our smartphones, it is important to be fully aware of how much data you are using so as not to incur any additional, unnecessary costs.

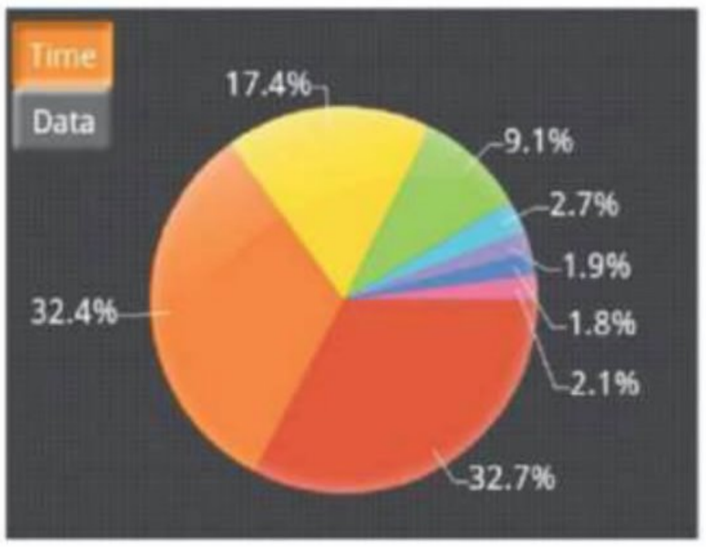
There are plenty of good apps available to help with this, such as MyDataManager (Mobidia Technology, Free). Once you install this app, you can be supplied with a detailed rundown of your Wi-Fi, roaming and mobile usage, with the information displayed in pie-charts and graphs.

You can also discover which apps are using data with automatic monitoring of your app data usage, set usage alarms to avoid overage charges and save you money by using your plans in a more effective manner.



1: Your data usage

When you launch the MyDataManager, the first screen will provide an at-a-glance view of your data usage. Tap on the tabs to see a breakdown for your Mobile, Roaming and Wi-Fi connections. You can also set up a plan to ensure you don't incur extra costs.



2: Get data info

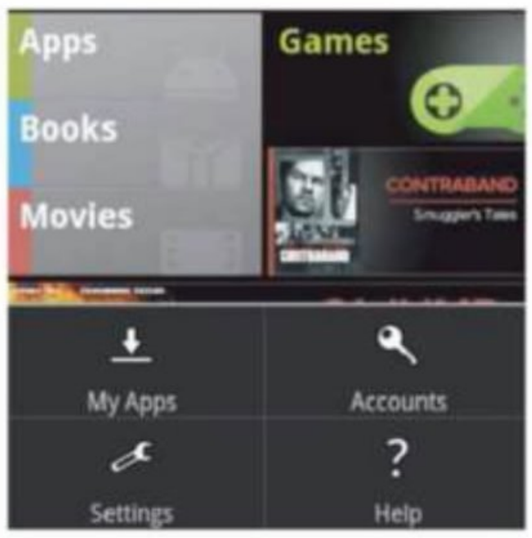
Swipe left or right across the screen to access other pages of info that relate to each connection type. These include a breakdown of apps that you have used, a full data graph and a detailed pie-chart showing a monthly, daily or hourly breakdown.

3: Access the settings

Press the Menu key to access the settings. Here, you will be able to set alarms so that you are alerted when you are about to exceed your allotted data usage. You can also set up a widget so that all the info you need is presented on your home screen at all times.

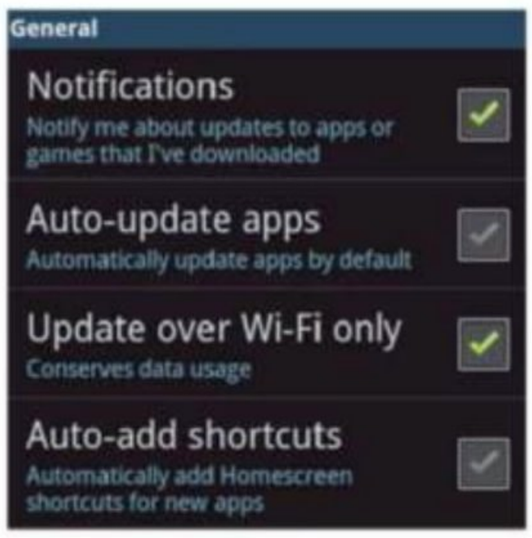
Prevent apps from updating automatically

Unforeseen data consumption occurs when apps update by themselves. Here's how to stop it



The easiest way to prevent your apps from updating automatically and eating into your data usage is to open the Google Play app and then tap on the Menu key to bring up various options for that particular app.

Tap on the 'Settings' option and then you will see options that relate to auto-updates. For the best results, enable 'Notifications' so that your phone will notify you if a new update is available and un-check 'Auto-update apps'.



To conserve data usage, enable the 'Update over Wi-Fi only' option so that if updates occur, they will only take place when your device is connected over Wi-Fi, thus eradicating unseen data consumption.

You can also visit the page of each individual app you use in Google Play and de-activate the auto-updating feature for each one. Though why you would do this and not collectively, as previously mentioned, only you can answer!

Battery

The fight for battery life is perhaps the most challenging in the modern phone age – here's how to win

Android may be the most powerful new mobile operating system in the world, it's certainly the most popular right now and the one showing the most innovation, both in the user interface and under the hood, with Google's resources and ambitions powering it forwards. However, we're now seeing ever larger-screened phones (4.8") with ever faster processors (quad core 1.5GHz). There are ever increasing amounts of RAM (2GB in one case!) and storage memory (up to 64GB), too. All of which can only mean that far more power is needed to keep the show on the road.

Happily, there's some good news too, in that larger batteries are now starting to be fitted, too – the Galaxy S III has a 2100mAh cell fitted and 1800mAh isn't uncommon on the flagship phones. Yet even with more charge inside, it's still far too easy to run out of power before the end of a busy day, which is why a little thought needs to go into working out the biggest drains on your smartphone's resources and managing your battery in a smart way.

Covered here are generic tips and tutorials which will apply to all Android smartphones; we look at diagnostic screens, at settings, at power saving tips, at choosing your installed applications and wallpapers with power drain in mind, and much more. Each tip may save 10% or 20% power drain, but combine them all and you can easily double your phone's battery life.

Not covered in this article is the burgeoning market in add-on battery utilities, most of which work by automating the techniques used here, but we wouldn't recommend investing in one of these (often complicated) utilities until you've mastered the basics.

Note that there will still be occasions when you run out of power, or when you forget to charge your phone before heading out. In this circumstances, we'd strongly recommend an external charger/battery of some kind – the Proporta Turbochargers are well known, but there are plenty of other third party alternatives. Perfect for keeping charged and in your coat pocket, perhaps?

A 12V-to-micro-USB adapter for your car is probably a good investment too, why not leave it plugged in permanently in your vehicle and give your smartphone a little top-up every time you travel? Finally, it goes without saying that if you're using your phone for in-car Google Navigation (or similar) then it should always be plugged in to a power source.

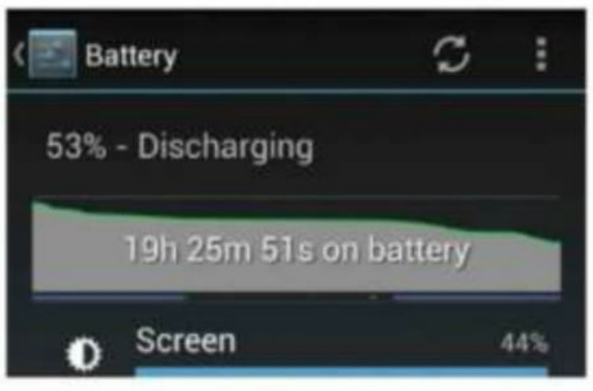
Should I be worried that my battery is sealed in?

If treated well (not too many deep discharges), your phone's battery will still be at about 80% capacity even after a year of hard use. If mistreated (letting it go flat often, exposing it to extreme temperatures), then it can be down to 50% after a year. Which is why having a replaceable battery is often a factor when choosing a smartphone.

Where's my battery going? | How to identify the real power hogs

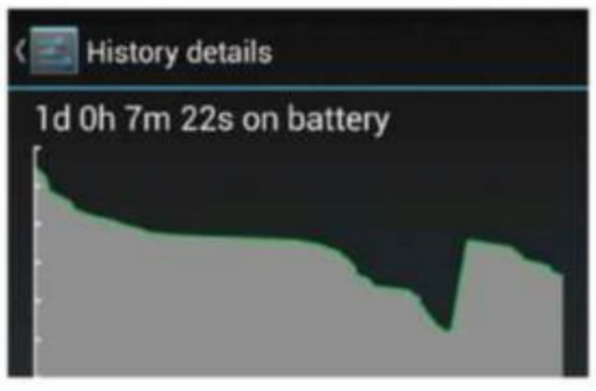
Battery charts

This is the best place to start – go into Settings on your device (usually on the menu on the home screen and/or as an application in its own right on the main apps menu) and scroll down until you see 'Battery'. Tap this.



Battery hogs

Sorted by the percentage of power used since the last recharge, Android gives you a complete breakdown of hardware battery hogs, plus any applications which have loaded up the phone's processor significantly.



Time chart

With fairly up to date devices, you'll see a line chart of battery charge over time – tap it to open the full-screen version, complete with diagrammatic confirmation of when connectivity was active, the screen was on, etc.

Time needed: 10 minutes **Difficulty:** Moderate

The Connectivity Conundrum

Connectivity is a hallmark of smartphones, yet this can suck power

It's a tricky balance, to be sure. You want your Android smartphone to be always connected, providing news and updates, email and access to the Web, yet you also want decent battery life. Things are wonderfully efficient when you're standing near a cell tower, but if you go and spend a couple of hours on the fringe of a 3G data cell then your phone will use up so much power trying to maintain the connection that your battery will be massively depleted.

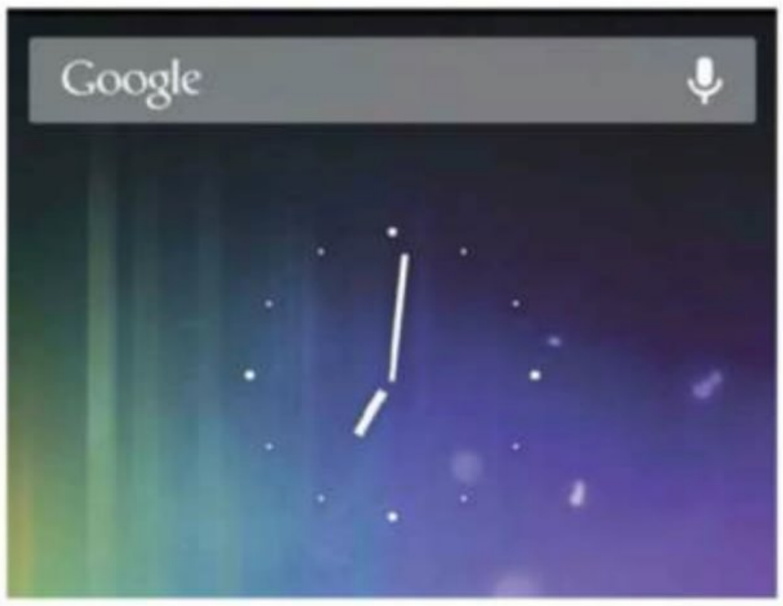
Disable power drains | Extend your battery life

1: The biggest tip of all?

Aside from fiddling with display brightness (as detailed elsewhere on this page), this is the biggest power saving tip of all. Your smartphone will keep using data – it's what it does. So we need to be able to turn 3G off sometimes. Find 'Wireless & networks' in Settings.

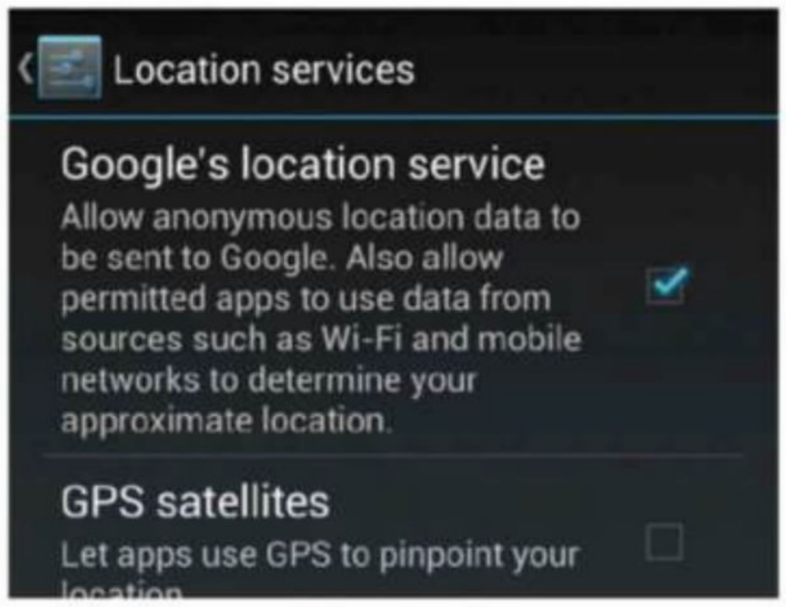
2: Disabling 3G

Tap on 'Mobile networks' and then tick 'Use only 2G networks'. This forces the phone to use GPRS and EDGE for data. These '2G' technologies are slower but less power-hungry than 3G, having a larger working range. So, when you have poor 3G signal, tick this option.



3: OnOff widget

Having to delve this deep into Settings just to tick this one box is a bit of a pain, mind you. However, the '2G-3G OnOff' app, available for free in the Google Play Store, will give you a direct shortcut to this very dialog. One tap and you're there. Well worth installing if you want to toggle quickly.



4: Watch out for GPS too

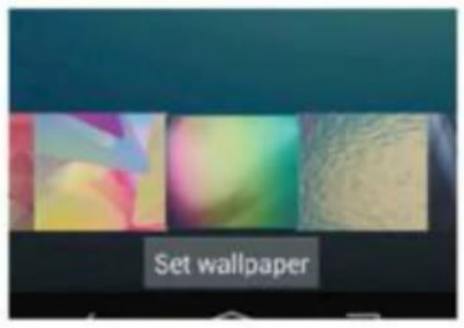
GPS is another power hog, which is unsurprising as it's receiving data from satellites in space! Many apps need your rough position, but cell tower location will often do. You can save power by going to Settings>Location services and unchecking 'GPS satellites'.

Power hogs on the home screen

Apps and widgets that actively update are costly

One of our biggest tips is to keep such widgets to a minimum. Just install and place the ones you really want, like stock tickers useful for work, rather than cartoons and updates from LinkedIn.

Also sucking in power are live wallpapers, often supplied by default because they look 'swishy'. These are effectively applications in their own right and are constantly using up processor power.



Once the novelty period is over, it's best to stick to traditional (static) wallpapers. Long-press a blank spot on any home screen to pick one that's suitably pretty and undemanding power-wise.

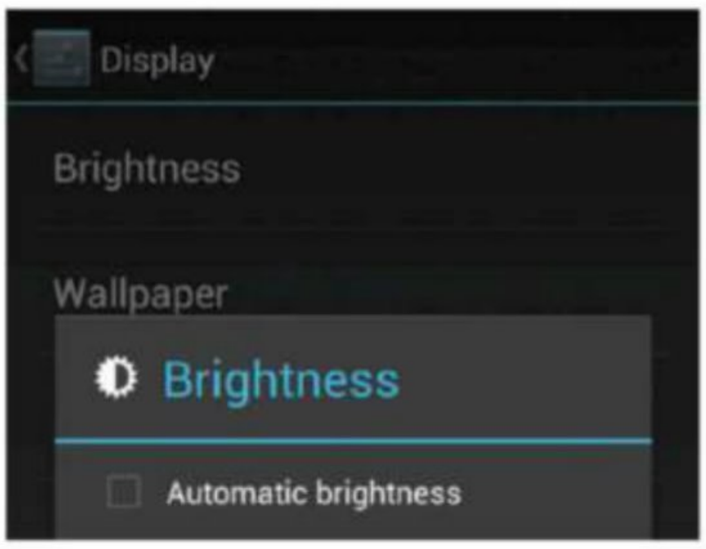
Time needed: 10 minutes **Difficulty:** Beginner

Screen matters

Possibly the biggest consumer of battery power, it pays to attend to your screen

Having established earlier from Settings>Battery that 'Screen' is the biggest power hog in your phone, let's see what can be done about reducing its voraciousness without affecting your user experience too much. It's very important to find out what sort of display your phone has – AMOLED screens (e.g. in the Samsung Galaxy S/S II/S III) work by getting each pixel to produce light directly, which is why black areas on an AMOLED display really are black, i.e. there's no light coming from the device at all. The downside is that this technology consumes ten times as much power when showing a white-themed screen (e.g. in Gmail, Browser or Calendar) as a dark one (e.g. Settings). You can save huge amounts of battery power by choosing to use wallpaper and applications that are 'dark'-themed. In contrast, LCD screens (e.g. in the HTC One S/One X) still use more power for different screen colours, but the effect is marginal. Far more important for LCD screens is the power being poured into the backlight's brightness.

Brightness | Minimise the power poured into your display

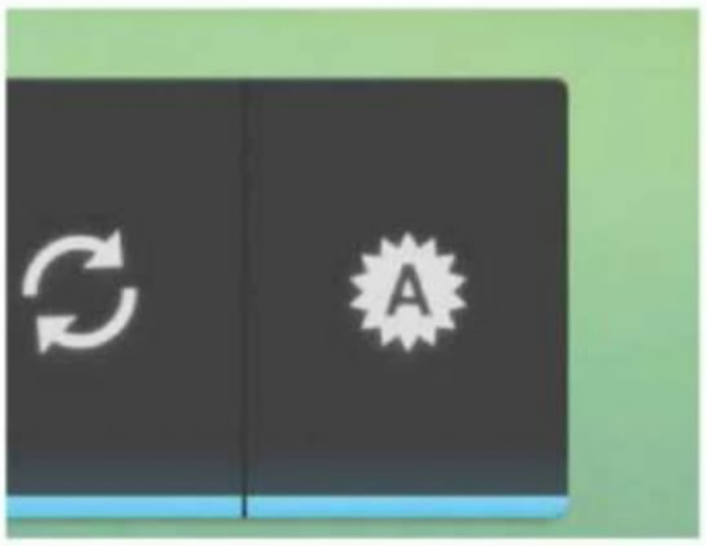


1: Brightness control

You've probably played with this already, but tap on Settings and then on 'Display' and then on 'Brightness'. On most Android phones there's the choice of either allowing 'Automatic brightness' or setting brightness manually using a slider.

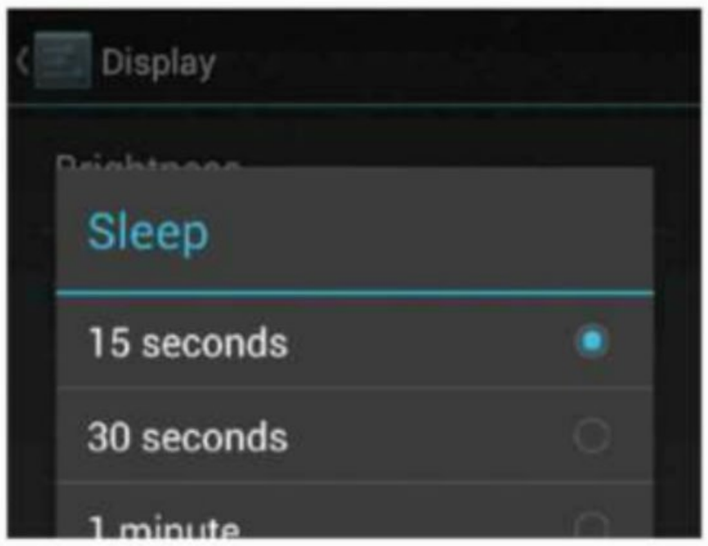
2: Give 'Automatic' another try

'Automatic' is well worth a try, by ticking the box – although the display will instantly look paler and less impressive, you'll be surprised how soon you get used to the 'new level'. If your phone has no 'Auto' box then just try taking the slider down to 50% instead.



3: Widget control

The standard Android power widget, present on almost all phones, has a button that provides four handy presets – just tap the button to cycle between: Auto, Minimum, Half-brightness, and Maximum. For example, you might use to 'Max' to play a game.



4: Shorter timeout

Head to Settings>Display and notice the 'Sleep' setting. This is the number of seconds the phone will wait after you stop touching it before the screen turns off. The default is usually '30', but try living with '15' – that won't affect you too much and helps avoid wastage.

5: Going dark

Android usually ships with a selection of dark-ish wallpapers, but if your phone has an AMOLED display then it's worth, when there's a choice, selecting apps which run 'dark'. For example, here's the third party Twitter client 'Tweetdark', which uses almost no power.

Time needed: 5 minutes **Difficulty:** Beginner

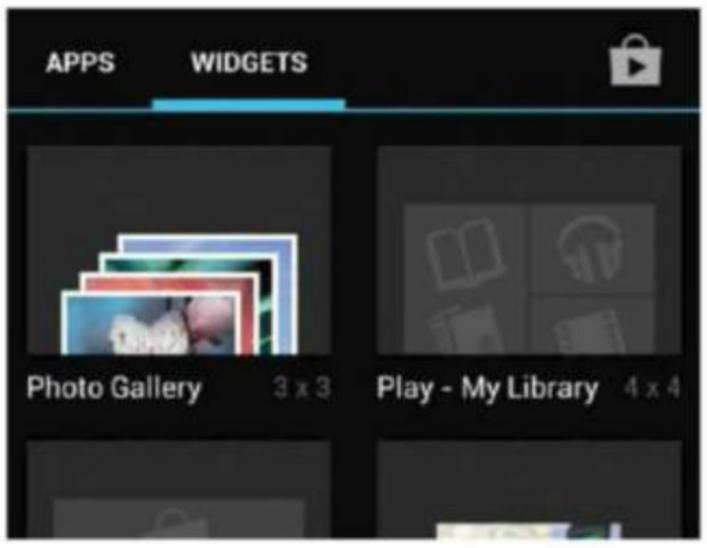
Android's Power Control widget

This strip of five icons is possibly your biggest ally in the fight to save power

Make a beeline for the standard Android Power Control widget, if it's not already on one of your home screens. It's a strip of five icons, letting you toggle (i.e. on/off) Wi-fi, Bluetooth, GPS and Syncing, with the fifth one switching between various screen brightnesses, as shown in step 3, opposite.

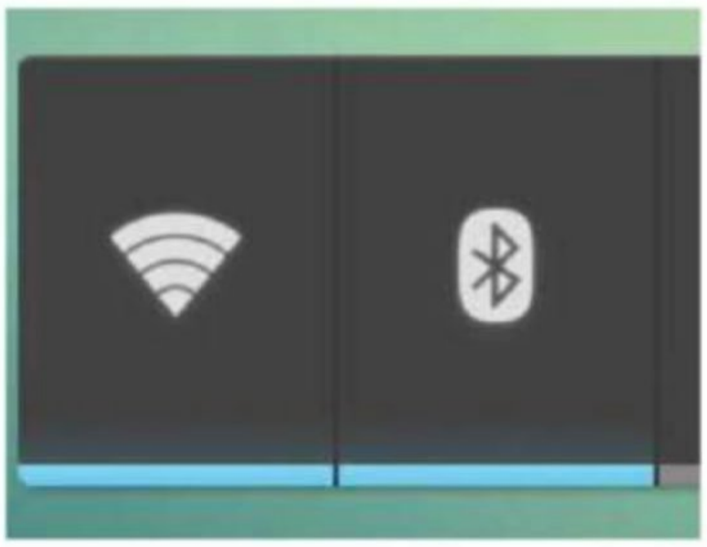
The usual issue with switching any of these on and off in a smartphone is that you have to spend half your day delving into Settings dialogs – it's soul-destroyingly tedious, so you'd end up leaving everything on all the time. With this widget, it takes one tap from your homescreen and you're done.

Oh, and a power user tip – you can place this widget more than once, so feel free to put it on multiple home screens.



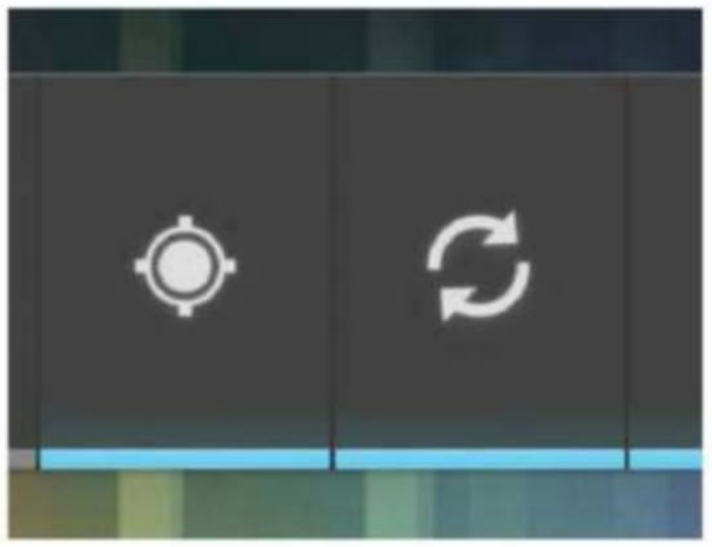
1: Place the widget

Just in case your phone currently doesn't have the widget showing, go to your widget gallery and long-press 'Power control', dropping it into a suitable empty space on a homescreen. On older Android devices, you may have to long-press the space first.



2: Toggle Wi-fi and Bluetooth

Wi-fi is an obvious function to turn off when you're mobile, but this doesn't save much power and also slows down position look ups and disables any Internet tethering. Turning Bluetooth off can help, and you may not miss it unless you want to connect an accessory.

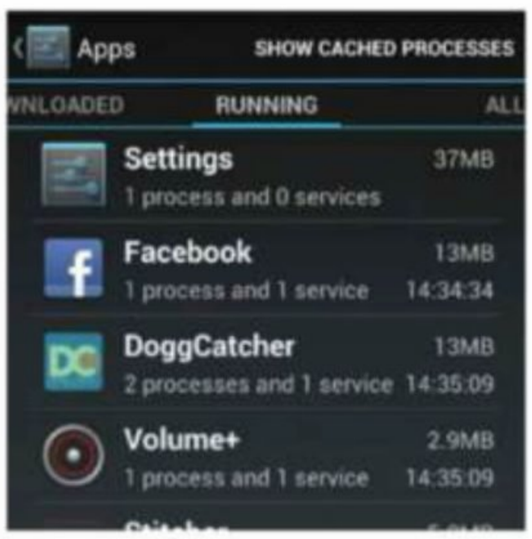


3: GPS and syncing

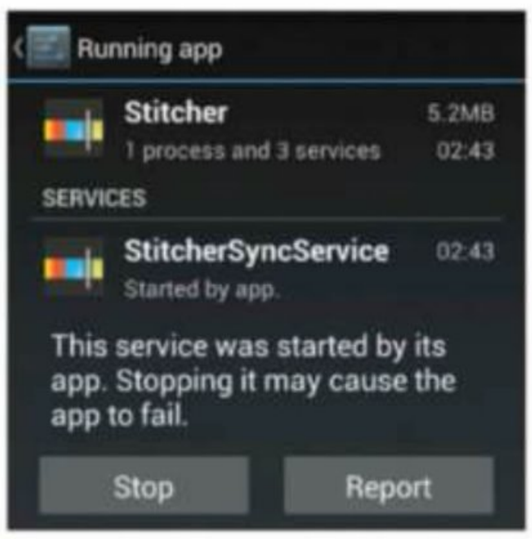
GPS is a big drain when it's in use, so try leaving it off unless using your phone as a sat-nav. Turning Syncing off (email and other accounts) can prevent your phone maintaining a power-hungry data connection – a great tip when in a low signal area.

Managing running apps

The cleaner you keep your list of running apps, the longer your battery will last



Everything that's 'running' will use processor power as it updates and possibly connects. You can see what's chugging away in the background by going to Settings>Apps and then swiping right to the 'Running' panel.



You can stop any app or service by tapping on it and tapping on 'Stop', though it's completely impractical to manage running apps from here on a day to day basis, you'd be forever checking, swiping and tapping!

Far better is to use a free utility like 'Advanced Task Killer' on Google Play. Uncheck any apps you really do always want running (e.g. Gmail, Doggcatcher), to protect them – Advanced Task Killer will remember your preference here.

When you feel your smartphone is running a little slow, and you're aware of having run dozens of apps which are probably hanging around using up power, you can kill off everything non essential with one tap. Clean and efficient.

Tricks

Use your Android device to its full potential by mastering the apps

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"Google's services have become even more tightly interwoven in Jelly Bean"

HOT TRICKS

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Navigate the internet quickly and intuitively using Google Chrome

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Read just the stories you care about in a personalised magazine

98 Find and download podcasts
Find and manage your favourite podcasts with the Google Listen app

100 Master the Movie Studio
Give your clips the star treatment with the Movie Studio video editor

102 Take Google Maps offline
Save areas of Google Maps offline to view them when not connected

104 Find nearby Wi-Fi hotspots
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106 Use your phone as a hotspot
Tether your phone to create a personal Wi-Fi hotspot

108 Control desktops via Android
Remotely access your PC or Mac

110 Find and protect your missing phone
Track down your device and keep your personal data safe

108 Grab files from your PC or Mac while on the go

86 Use video chat and photo streams on Google+

App used: Nova Launcher **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Customise your phone's design

Give your smartphone a new look with Nova Launcher

The Ice Cream Sandwich update brought with it a whole new look to Android phones, offering users a new experience combining minimalist and modern elements. But manufacturers continue to skin their phones to give them a distinct look. Sometimes these skins are good; sometimes not. If you don't like yours, why not try a new launcher as an alternative?

The launcher consists of several elements: from the design of your app drawer, to the animation and speeds it takes for you to move around your various home screens. There are several replacement launchers on Google Play, and each offer their own unique customisable Android experience. For the purpose of this tutorial we'll be focusing on Nova Launcher, which is exclusive to Android 4.0 devices and packed with features and settings to tweak how your phone looks and acts. In this tutorial we'll show you how to make your phone stand out from the crowd.

ICS favourites
Nova Launcher can be customised to taste, but the fundamental ICS elements stay the same. The notification bar remains, although it can be removed in Settings, and the choice of wallpapers won't change

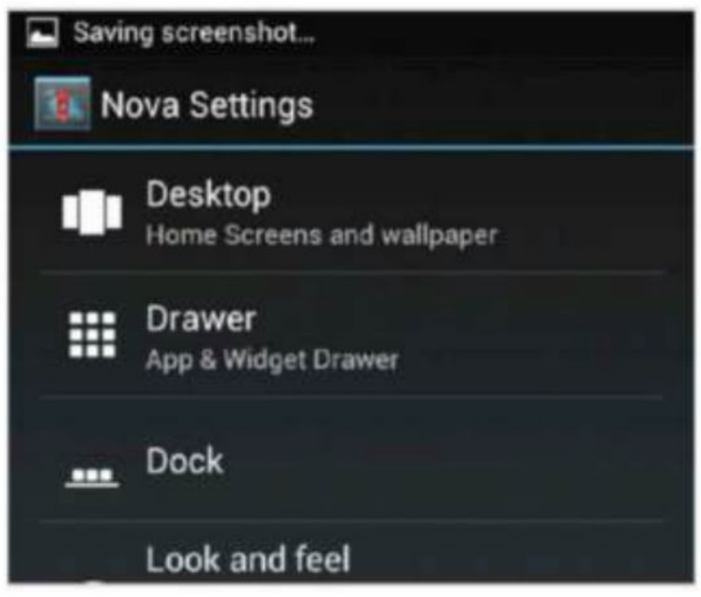
Widget size
Certain widgets will differ in their size when you look through them on Nova Launcher. Placing a widget, editing and removing one is the same process with any launcher you choose to use on your device

The dock
You can edit your dock to show different icons than the ones pre-installed on your device. By placing one app on another you can create a folder allowing you quick access to several apps at the same time

Feature heavy
The free version of Nova Launcher has most of the features you could want to be able to tinker with the design of ICS. For £2.55 you can upgrade to Prime and get access to more options and settings

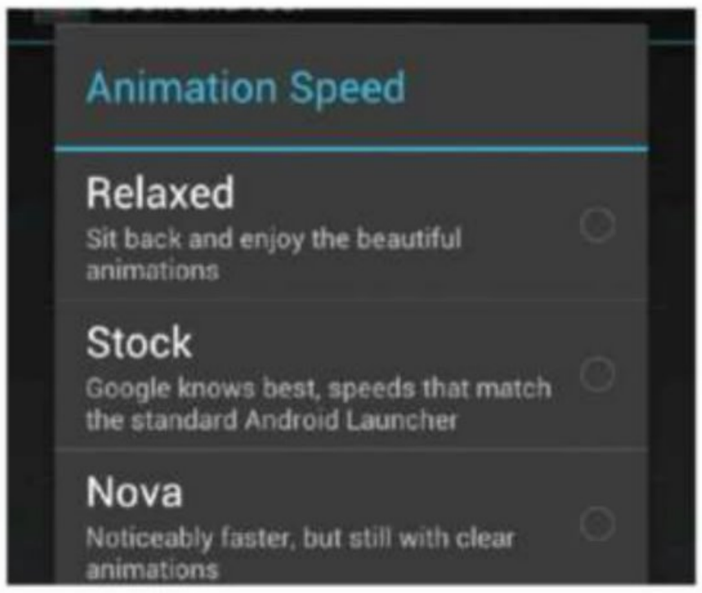
Refresh your phone | Get a new launcher

1: Installing the app
Go to Google Play and search for Nova Launcher (we use the free one here; not Nova Launcher Prime). The app is small at under 3MB and uses little system memory when running. Install as normal and then open the app to get started.



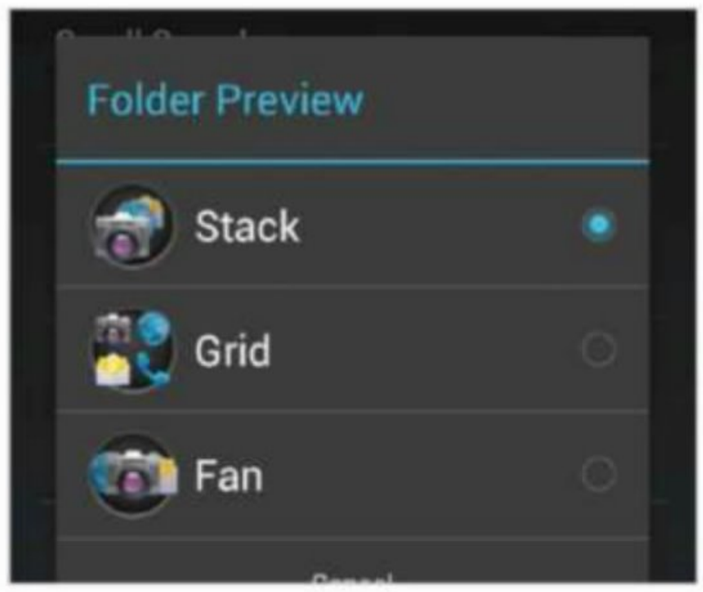
2: Access the settings
While on the home screen, press on the Nova Settings app. This will now take you to the settings page of the Nova Launcher, from which you'll be able to completely customise the design of your phone. There are loads of sub-menus so get used to its layout first.

3: Edit home screens
Choose the Desktop tab from the list of settings. Here you can change the layout and design of your phone's home screens. One of the best features is being able to add or remove home screens. You can also pick which one to load when you first switch on.



4: Alter animation speeds

Open Look and feel from the settings menu and scroll down to Animation Speed. Here, you can choose how quickly you want your phone to respond when you navigate.



5: Group folders

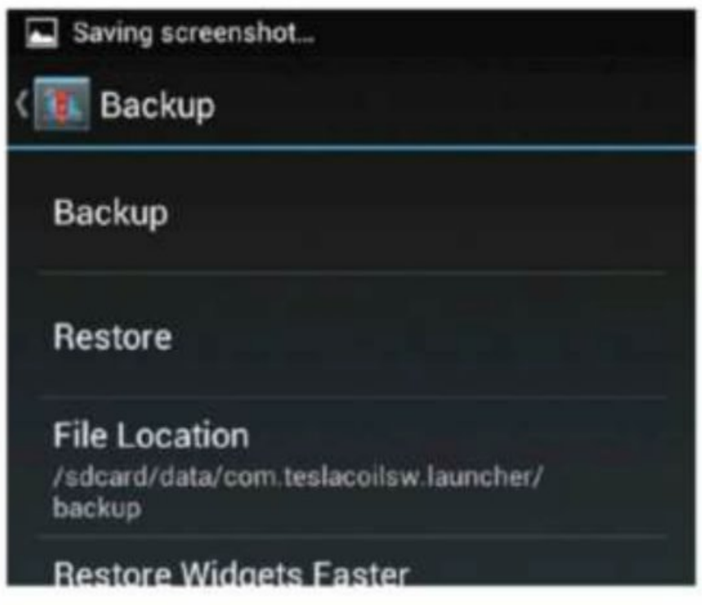
Within the same Look and feel menu, open up Folder Preview. When you group apps they create a folder, and this menu will let you choose the design for the preview function.

6: Flick between screens

The next step in the customisation process is to change the way you can swipe between your home screens. There are lots of options and you can create some really cool effects.

7: Upgrading to Prime

As you search through Nova's vast amount of settings, you'll no doubt come across several settings labelled Prime. These can only be accessed if you've paid for the full version.



8: Create a backup

One of Nova's best features is its ability to back up your changes to the cloud, or to an SD card. The Backup folder and Restore option are at the end of the Nova Settings.

9: Viewing finished product

After you have customised your launcher, you can now go back to the home screen and see if it caters for your needs. If you want to make further changes, just go back to the Settings.

Are there other launchers available?

Although we highly recommend Nova Launcher, there are other alternatives on the Google Play store. Another highly recommended app is Apex Launcher which includes the same functionality as Nova, but also allows for developers to get creative with it.

Can extra themes for Nova Launcher be downloaded?

You'll find a number of different wallpapers and themes available for Nova Launcher on the Google Play store. Simply find and install one of the many apps, and then the themes can be added by going through the necessary menus in the Nova Settings app.

New for Jelly Bean

Take control of your widgets

Time needed: 10 minutes **Difficulty:** Beginner

Widgets are essentially shortcuts to your apps. Here's some of the new features unlocked within the Jelly Bean update

When you have lots of apps on your device, it can become frustrating having to trawl through your app drawer in order to access a particular app. To gain quick access to some of your favourite apps, however, you can add widgets to your home screens. Widgets come in a variety of shapes and sizes, and can be added to your home screen with just a few swipes of your finger.

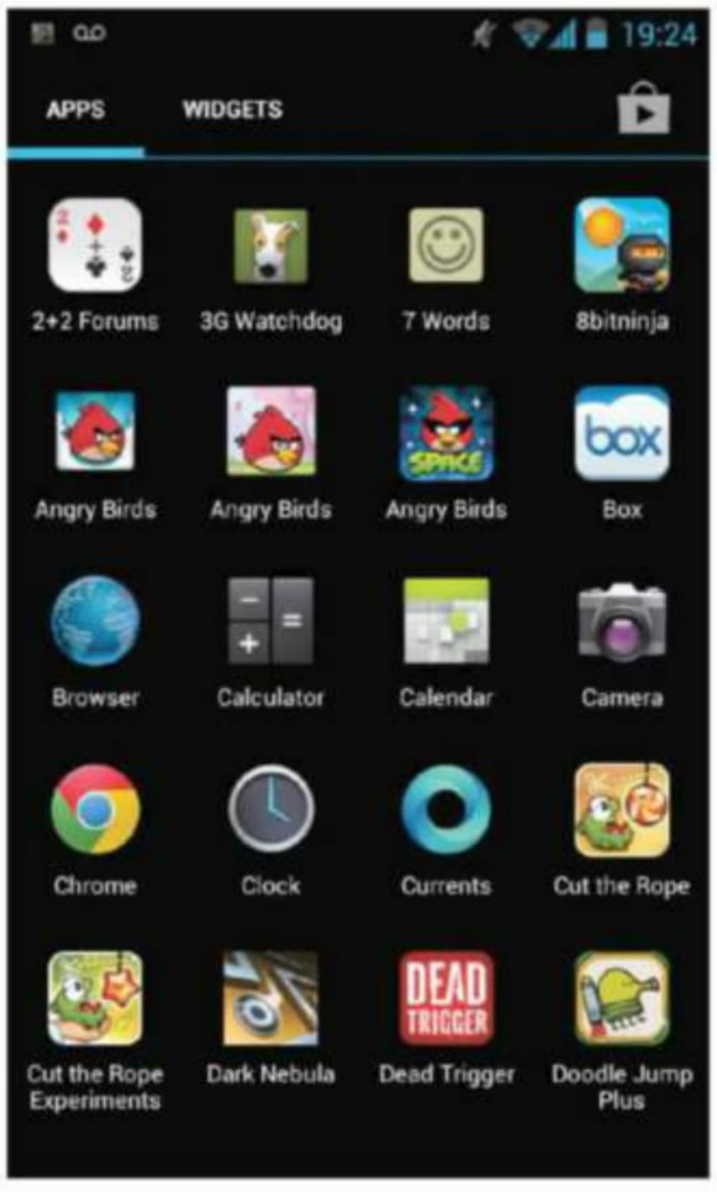
Traditionally, widgets have been simple affairs that can provide quick access to the full app, but with the recent Jelly Bean update, all this has changed. Widgets have evolved a lot, and now they're packed with plenty more features, and are a lot more intuitive to boot, while still keeping the same functionality as they had previously.

In this tutorial, we will take you through the basics of using a widget, as well as explore some of the new features that can now be used thanks to this recent Jelly Bean update.

Using widgets | Add functionality to your home screens

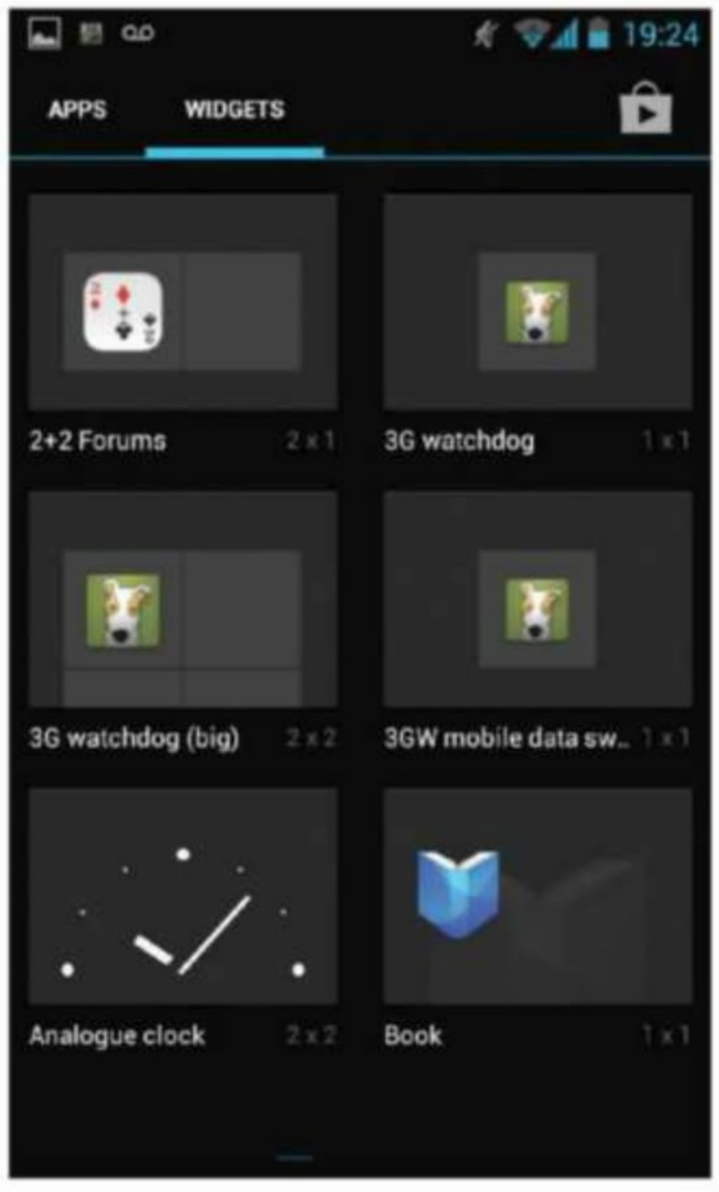
1: Start on your home screen

When you turn on your phone after the Jelly Bean update, you should see the same layout as you had previously, minus any stock widgets that may have been changed.



2: In the app drawer

In the app drawer, press on the widgets menu to continue, though be aware that this may take a few seconds, as many of the stock widgets will have changed.



3: Choose your widget

One of the new features in Jelly Bean is the auto-resizing of widgets, meaning you can edit the size of it when you place it on your home screen.

Placing widgets on home screens

Specify the look and location of your new widgets

Get app information
When you're looking to place a new shortcut, drag it to the top of the screen to go to the information screen. Here, you can uninstall the app and check for updates

Automatically move around
When you add a new widget, your current icons and widgets will automatically move around your screen to accommodate your new addition. If there isn't enough room you may need to resize the new widget

Resized widgets
Although not all widgets support this, some widgets can be resized to make it easier for you to change the layout of your home screen

Scroll through home screens
Being able to scroll through home screens while holding a widget has been made much easier. By nudging the widget against the side of the screen, you'll scroll to the next one

Adding widgets
You'll find that as you install new apps onto your phone, their corresponding widgets will begin to populate the Widgets panel of your app drawer. If you're looking for something more specific, simply head to Google Play and add 'widget' to your search query

4: Move and match
Long-press on the widget you want to add and wait to be directed to the home screen. When you move a widget, others will automatically be rearranged.

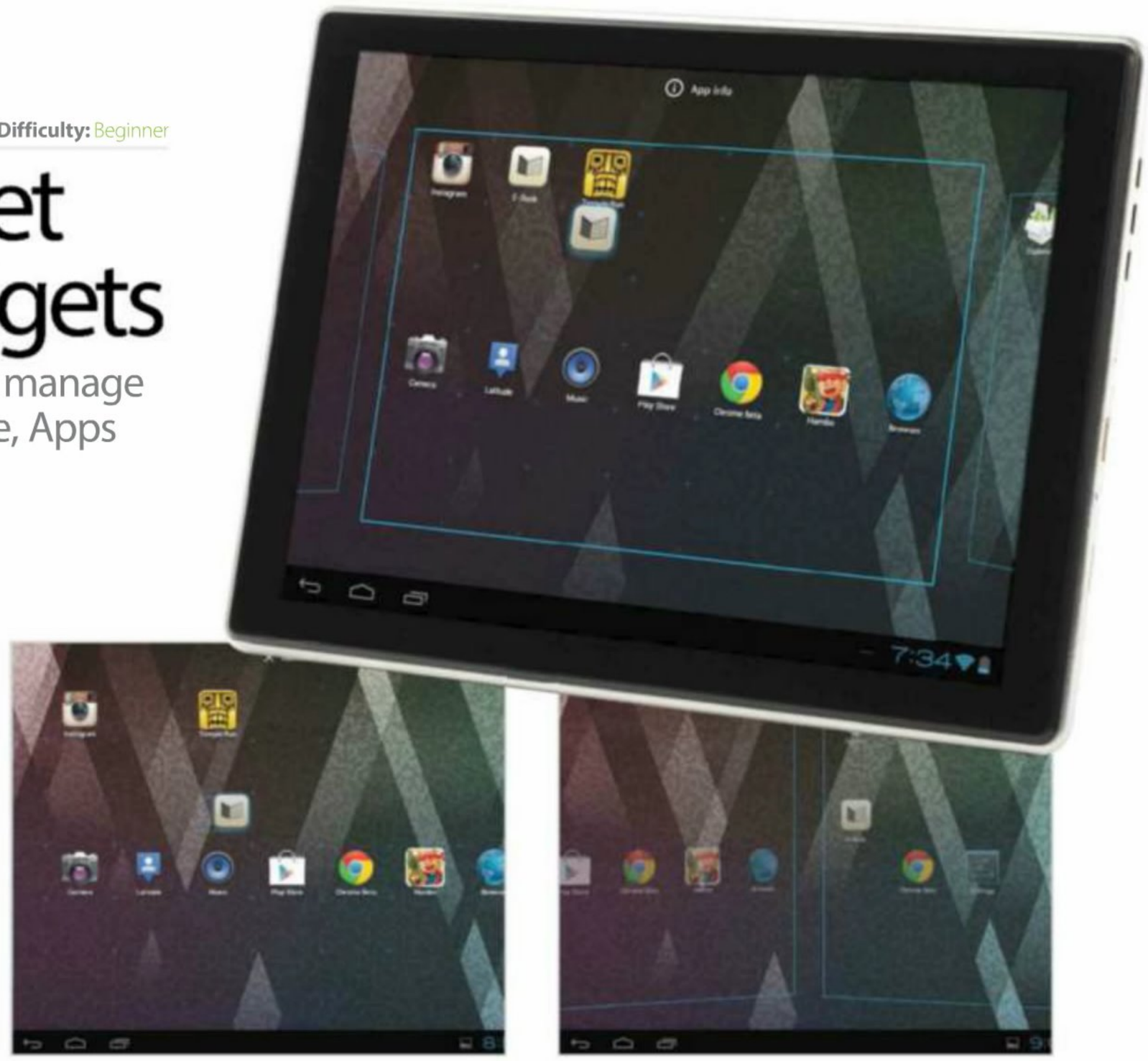
5: Remove a widget
Long-press on a widget and move it up to the Remove tab at the top of the screen. The widgets that are left on your screen can then be resized to fill up your screen.

6: Download extra widgets
Many of the larger widget packs, including Beautiful Widgets, enable you to resize them, and they'll automatically move when you add something else.

Time needed: 10 minutes **Difficulty:** Beginner

Organise tablet apps and widgets

Discover how to rearrange and manage apps and widgets via the Home, Apps and Widgets screens



A home screen is typically populated by a selection of apps and widgets. However, this generic offering, by its very nature, is only going to appease users for a short while. Every user wants a home screen, or set of screens, that is customised to suit their individual needs.

The initial selection will soon expand as more apps and widgets are added. By default, the new additions will push out the current selection of apps to create a less productive set of screens. If you love Twitter, there is no point having the Twitter icon placed in a position where access is less prominent. A favourite app needs its icon to be placed in a prime position on screen. Arranging an Android tablet screen is very much a tap, hold and drag affair. There are plenty of options available to ensure you get the experience you're looking for.

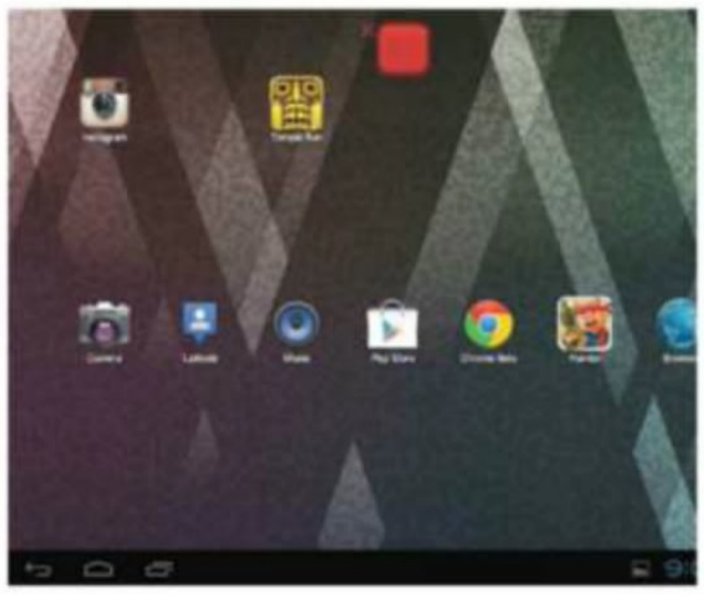
Move icons | **Place your apps**

1: Arrange home screen

The home screen will include a default selection of app and widget icons which will be arranged in a default layout. To re-arrange the current selection of icons tap and hold down the icon to be moved. This will activate a placement grid – simply drag and release.

2: Move to another screen

A tablet is blessed with a number of home screens and moving from one to another is really simple. Hold down the desired icon until the placement grid appears, drag to the edge of your tablet's screen, wait until the new screen appears and simply release.



3: Remove unwanted icons

If an app or widget is no longer in use it needs to be removed from the current screen. Hold down the icon to be removed until the Remove text option appears at the top of the screen. Now all you need to do is drag the icon over the Remove text to get rid.

4: Add an app

Pre-installed and downloaded apps are stored via the Apps screen. Press the Apps icon to view the current selection, or slide left/right to view more. Press and hold an app until the home screen appears and release. Drag into the preferred position as shown in Step 1.

5: App info

In the previous step when an app is pressed and held an App info link appears at the top of the screen. Without letting go of the app icon drag to the App info link and release. This will open a new screen with information and tasks that relate to the selected icon.

Group apps and widgets together

Apps and widgets typically come under a common genre. Neatly arrange them in folders to save precious space

6: Add a widget

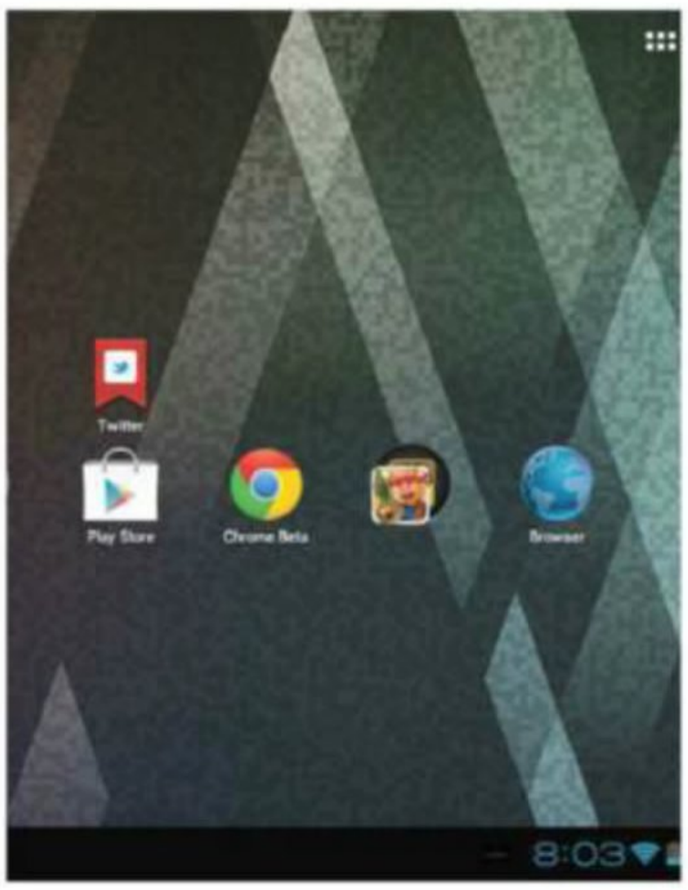
Slide left from the Apps menu to see Widgets. Tap and hold one to take it to the home screen.

7: Different options

If options are included, ie Bookmarks, a window will appear to display them. Tap an option, ie Twitter, to add the widget.

8: Widget with options

One example of widget options is Directions & Navigation. Tap, hold and release when the home screen appears. This offers the option to add an address, name and icon. Tap Save to add. You can hit the down arrow to remove the keyboard and back to return.

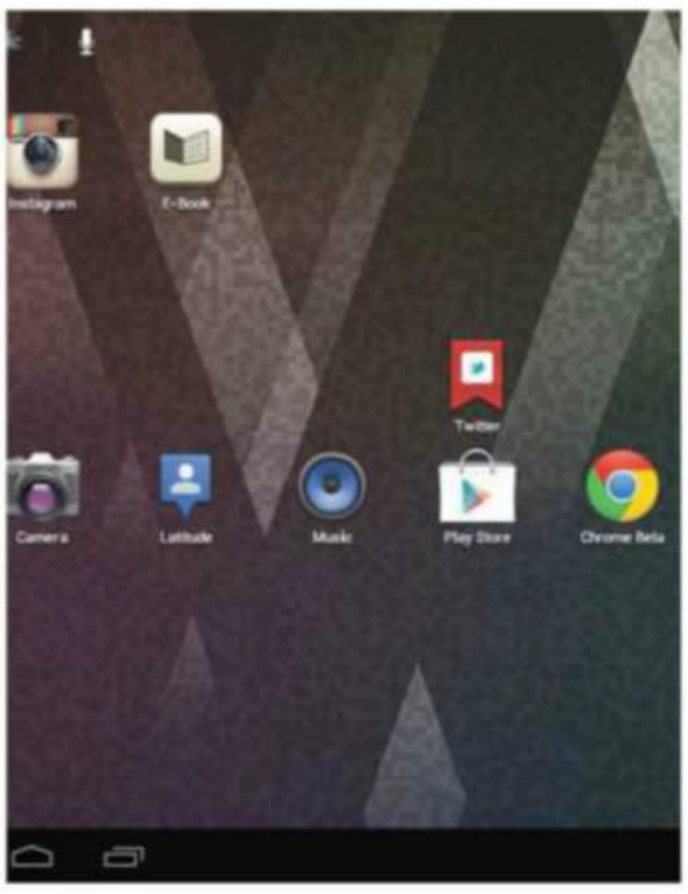


1: Bring two icons together

Apps and widget icons can be grouped together, saving space and leaving more room for widgets. Tap and hold an icon then drag it on top of another to create a folder.

2: Give it a name

When two icons are brought together they create an unnamed folder. Open the folder, tap on Unnamed Folder Games and type in a new name. Tap it once again to close.



3: Add more

To add more apps and widgets to a folder, tap, hold and drag into place. To add from the Apps screen, tap, wait and drag onto the folder icons. You can create multiple folders.

4: Arrange folder icons

To arrange the icons within a folder, first tap to open the folder. Now tap, hold and drag the desired icon into its new position. Repeat the process until all the icons are placed.

New for Jelly Bean

Time needed: 10 minutes **Difficulty:** Beginner

Typing made easy with Jelly Bean

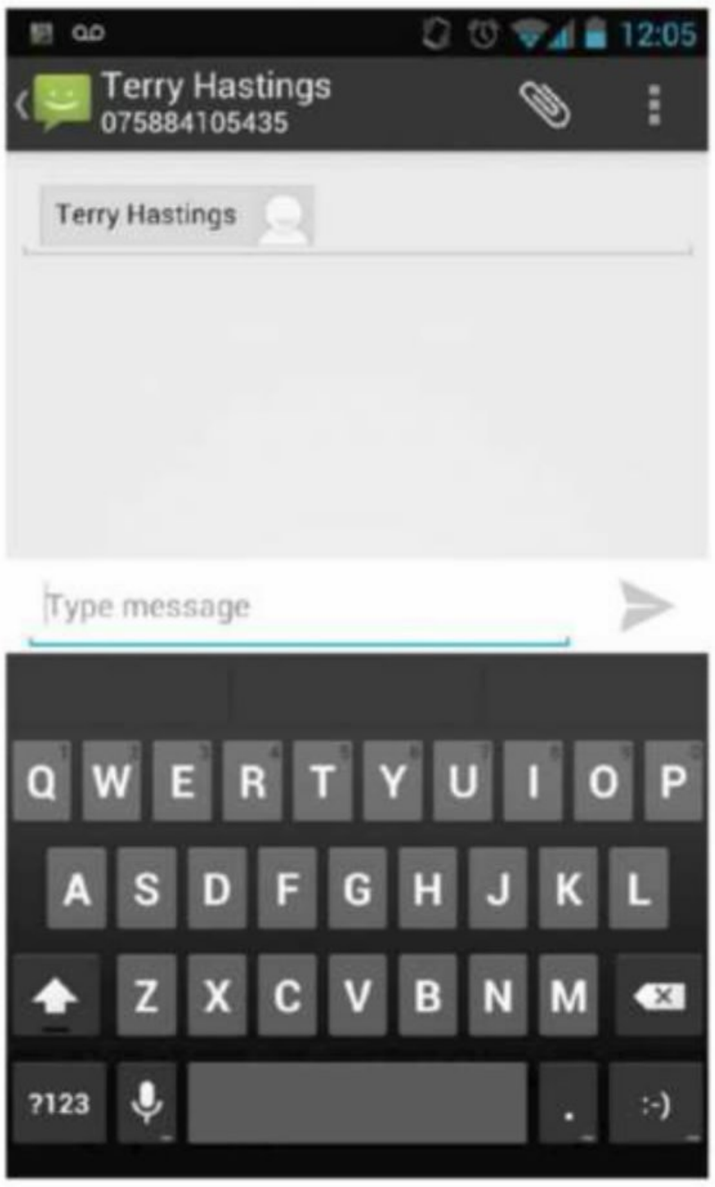
Android's stock keyboard and dictionary has undergone a facelift to make it a typing treat

There were a lot of problems with the old stock keyboard on Android devices. People with bigger fingers would often struggle to pinpoint the exact letter they wanted to press, certain pieces of punctuation were well hidden and the predictive text was just plain rubbish. Things have changed now, though, and with the Jelly Bean update a new and improved keyboard has emerged.

As well as the keyboard, the stock dictionary that Android devices have pre-installed has also been improved to make adding words a whole lot easier and to cater for the occasional slang term as well. Although they aren't the most groundbreaking changes that the Jelly Bean update brought in, they do make typing a lot quicker.

In this tutorial we'll take you through all the changes that have been implemented in the new keyboard and dictionary, as well as showcase some of the older features that have been tweaked.

Type faster | Take advantage of the new keyboard functions

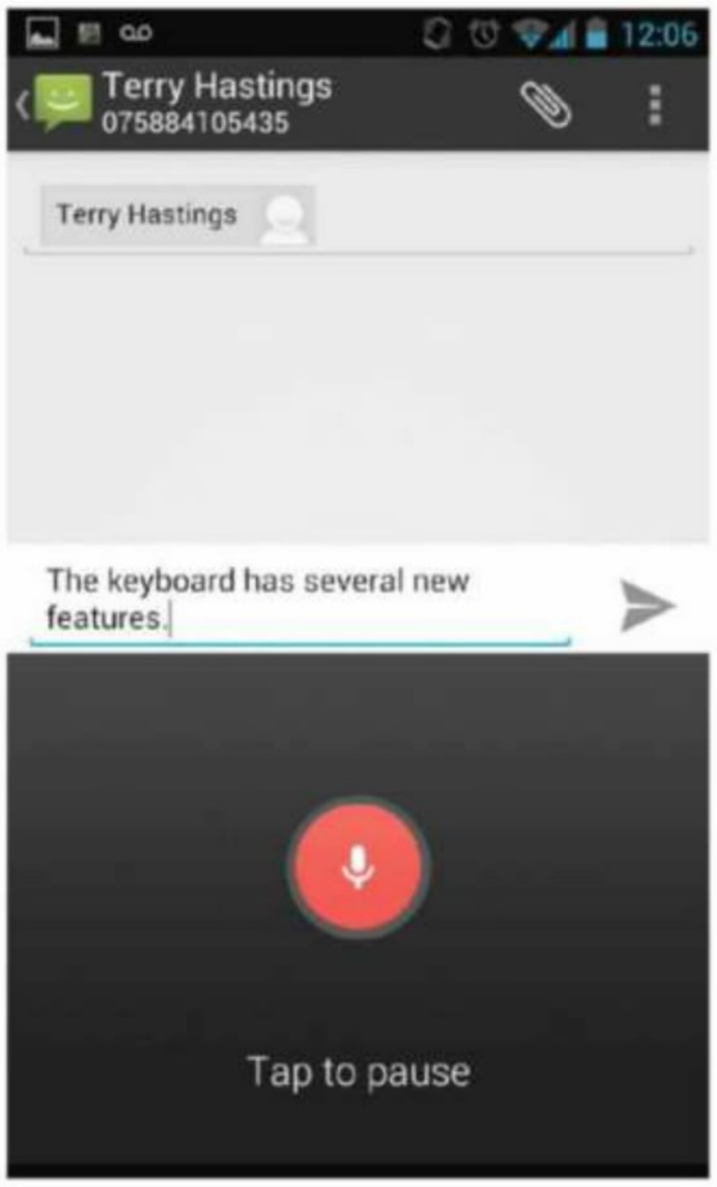


1: Get used to it

Open up a blank message and play around with it. Get used to the new layout and begin typing a message out. You'll find that several menus have changed location as well.

2: New look punctuation

The new punctuation menu can be accessed by long-pressing on the full stop icon next to the space bar. The menu is slightly longer, and punctuation can be added by highlighting it.

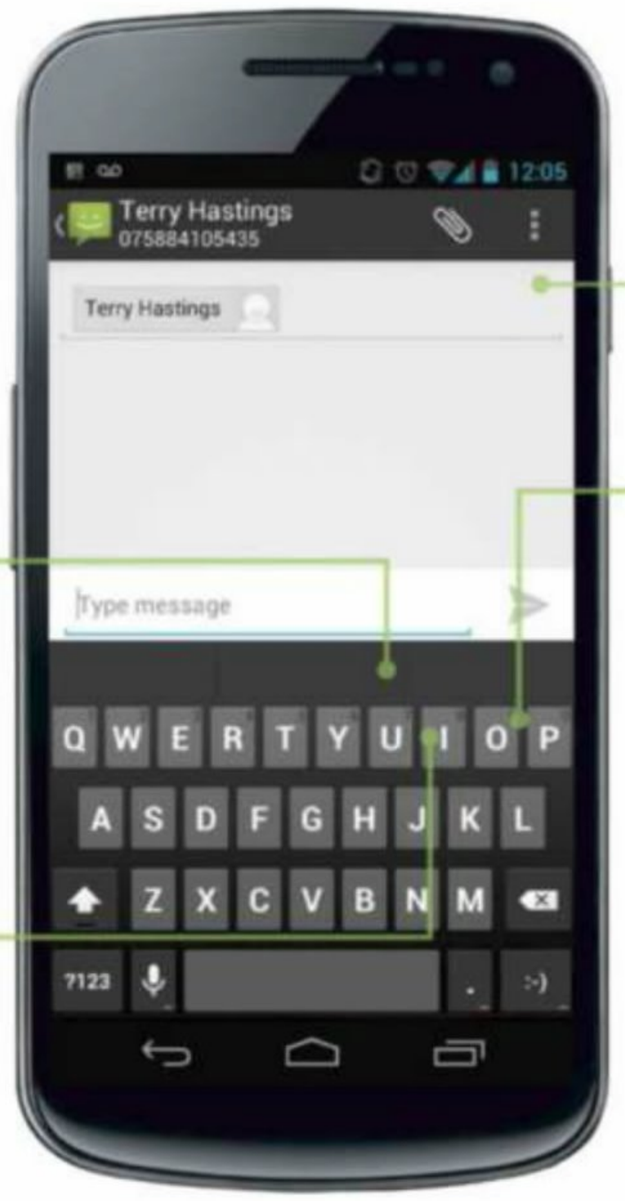


3: Speak to type

One of the most improved features is the speak-to-type mode. By pressing the microphone symbol, speaking to your phone allows you to create a message.

New keyboard and dictionary

Find out how to use Jelly Bean's new set of tools



Add some emotion

As well as having access to emoticons from previous instalments, Jelly Bean also comes with a series of new ones that you can add to your SMS messages

Use a hotkey

After using the keyboard for a while, you might develop a certain typing pattern that you want to adjust. By venturing into settings you can set the keyboard's different hotkey functions

Advanced prediction

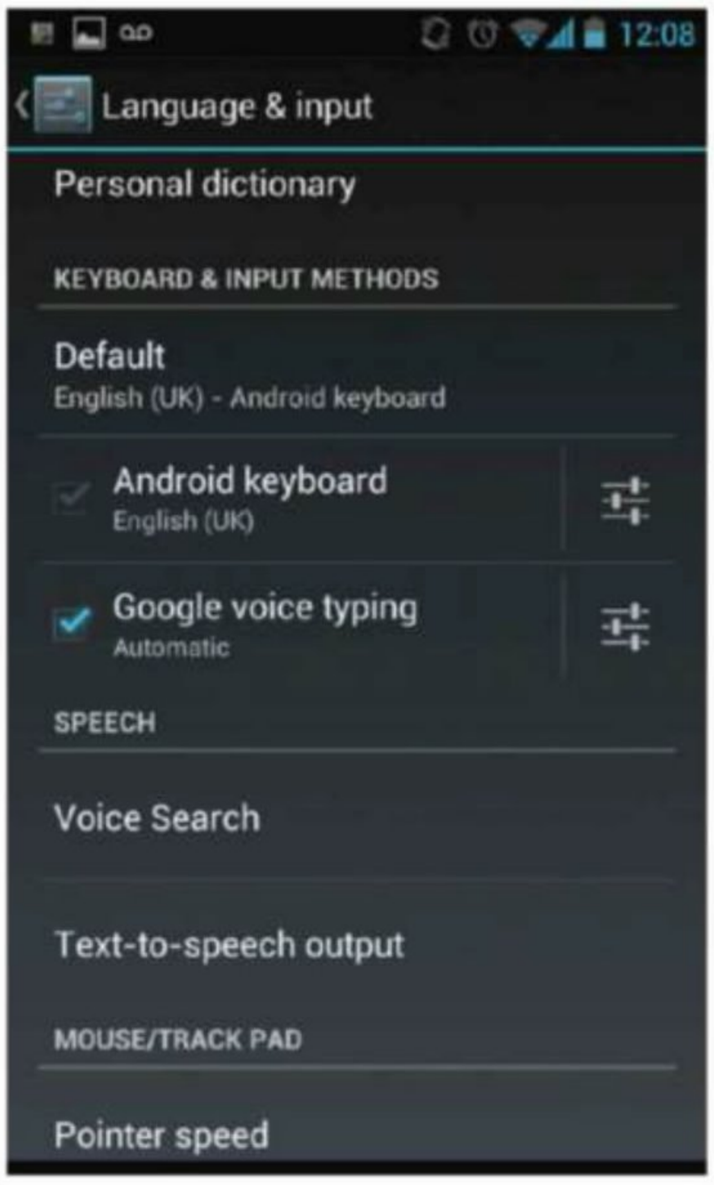
The word prediction feature found above the keyboard is thorough and accurate, and corrections are generally more useful as well

New look

One of the first things you'll notice about Jelly Bean is that it has undergone a big style change. Buttons are more spread out, and menus are easier to access

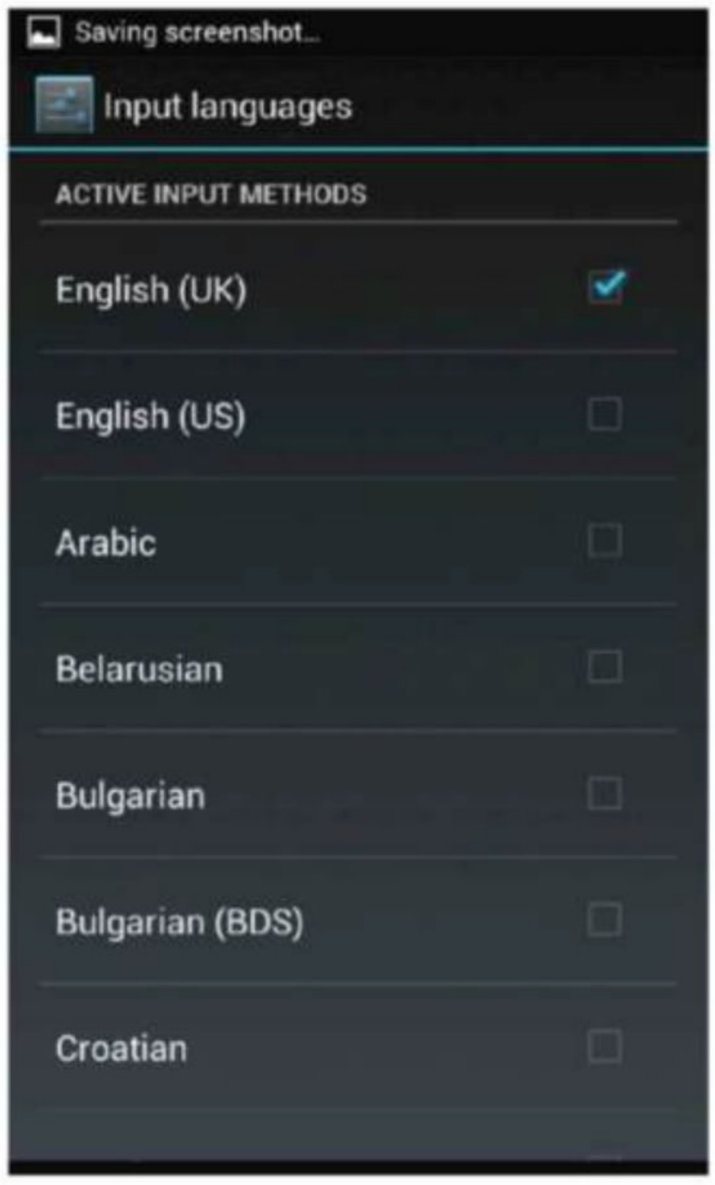
Intuitive dicionary

A great little time-saver is the word prediction feature's ability to quickly recognise new words. Typing an unfamiliar word for the first time can be a slow process, but once inputted the word will be recognised again the next time you begin to type it out



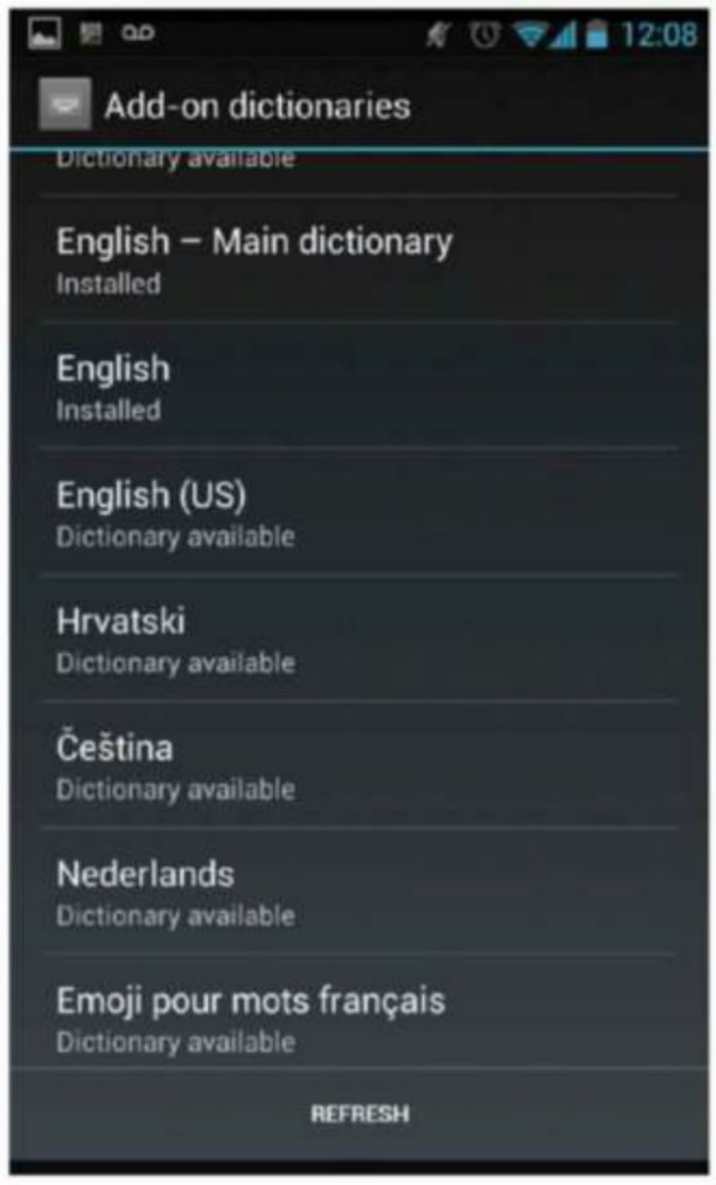
4: New input methods

If you aren't a fan of speak-to-type you can disable it in the Language and Input menus. Scroll down to the Keyboard Methods tab and de-select Google voice typing.



5: New input styles

In the settings, there is also a new custom keyboard style menu. Why not give the QWERTZ or AZERTY keyboard style a try and see if your typing speed improves?



6: More languages than ever

In the same menu, you'll find a whole host of different languages that you can install. You can also select the default language your phone is from with the option at the top.

New for Jelly Bean

App used: Voice Search **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

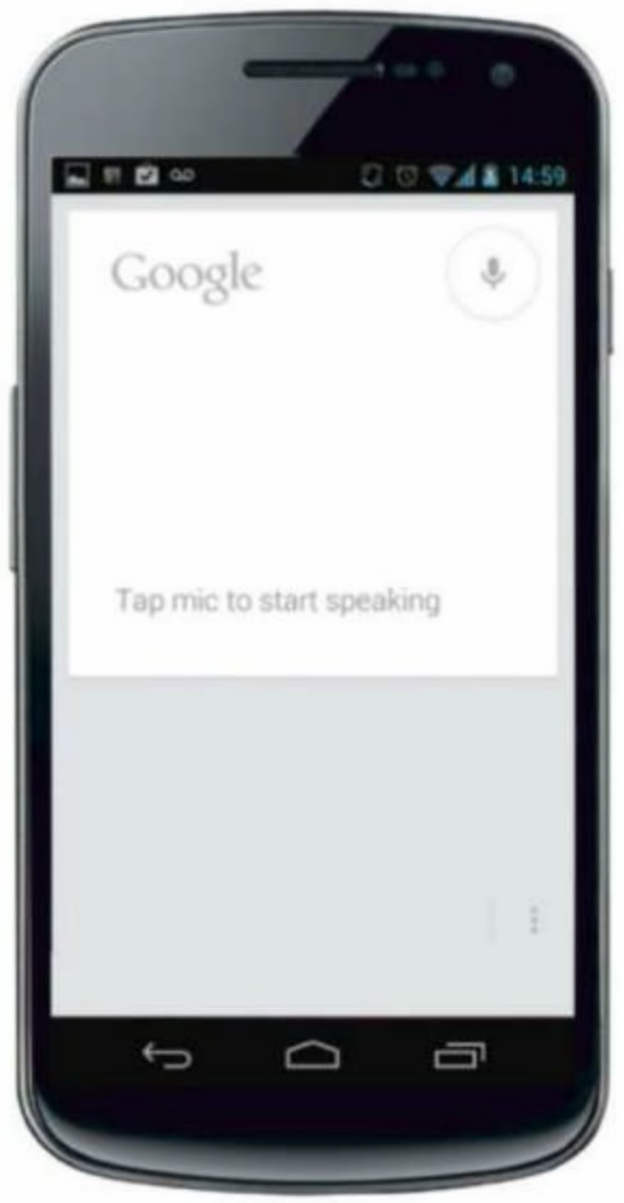
Control your phone using your voice

Ask for the information you want using Google's new Voice Search feature

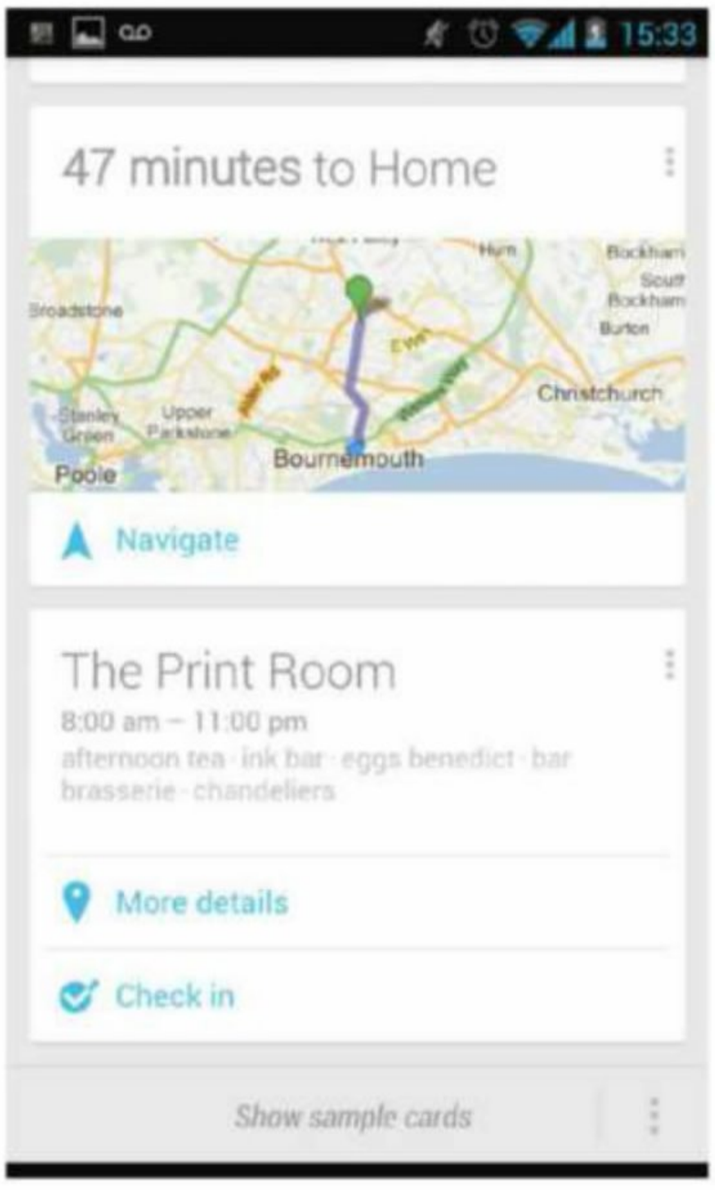
Although not a direct competitor to iPhone's Siri, Google's Voice Search feature is one of, if not the biggest change within the Jelly Bean update. One of the biggest changes implemented into the Voice Search system is an improved voice recognition feature. The new speech recognition system doesn't need to be connected to a secure WiFi network, plus you can search for anything on your device, as well as ask a series of questions that can give you access to the information you need.

There is a fantastic amount to look at, including a detailed weather forecast, the latest sport scores, and even what the traffic conditions are like in your area. Android's big focus on linking with other apps and features is clearly implemented with the Voice Search feature as it's massively used throughout the device, and especially with Google Now.

In this tutorial we'll take you through how to get started with the new Voice Search feature, and how you can use it with other apps too.



Voice Search | Ask Google for information

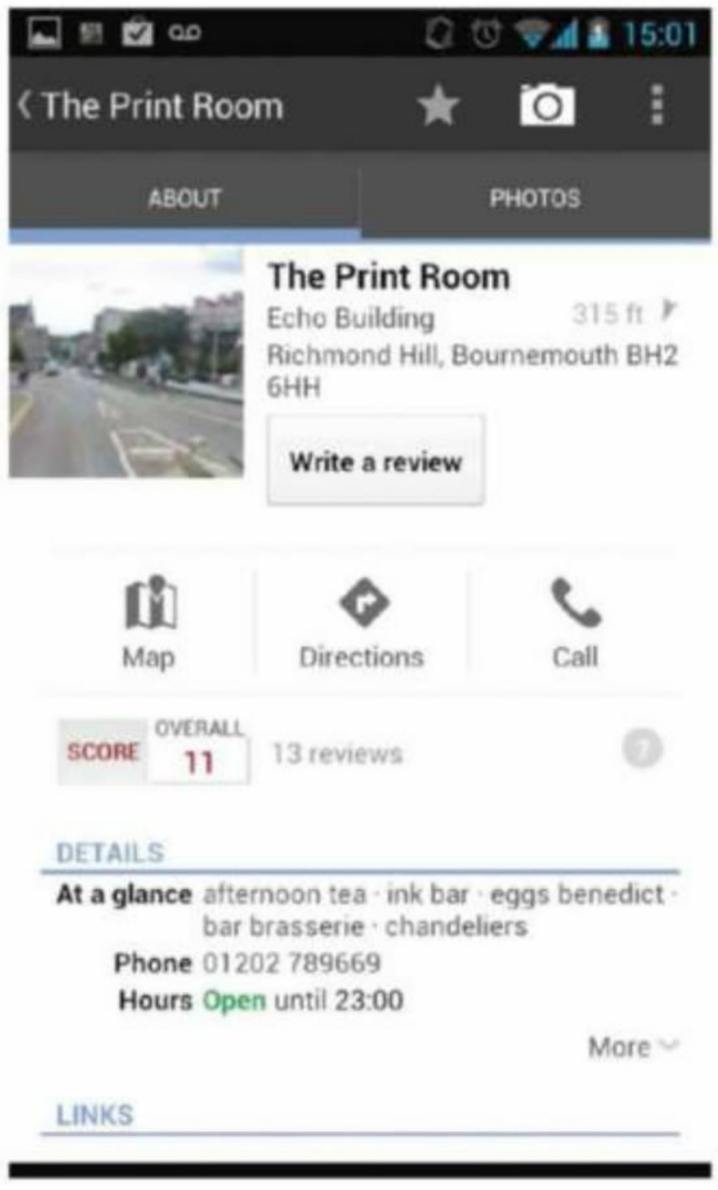


1: What to search for?

Try and make sure you base what you search for around the features of Google Now. This will make your results clearer, plus you'll get other Google apps displaying your results.

2: Slow and steady

Press the search bar for the microphone to activate. Depending on your device, the quality of the microphone differs, so be sure to speak clearly into your device.



3: Get detailed results

If you search for something specific, like the opening hours of a cafe in your area, the Voice Search system will work alongside Google Maps to bring you the info you need.

Making a Voice Search

Find out how to search for information quickly

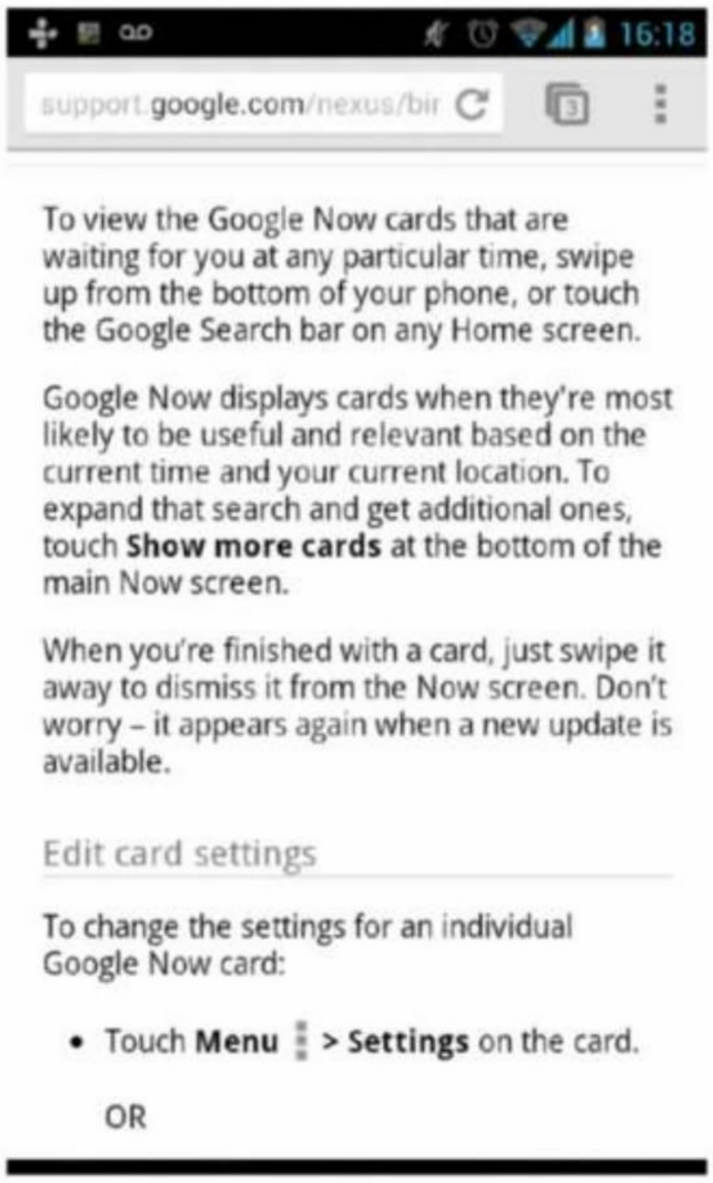
Start a new search
If you want to start a new search, press the microphone symbol on the search bar. You'll then be taken back to the blank Voice Search screen

Show the results
If the Voice Search function understands you, it should show you a card containing the relevant information to your request

Search the web
As well as showing the information through the clever card system, you'll also find that Google will perform a web search based on exactly what you said

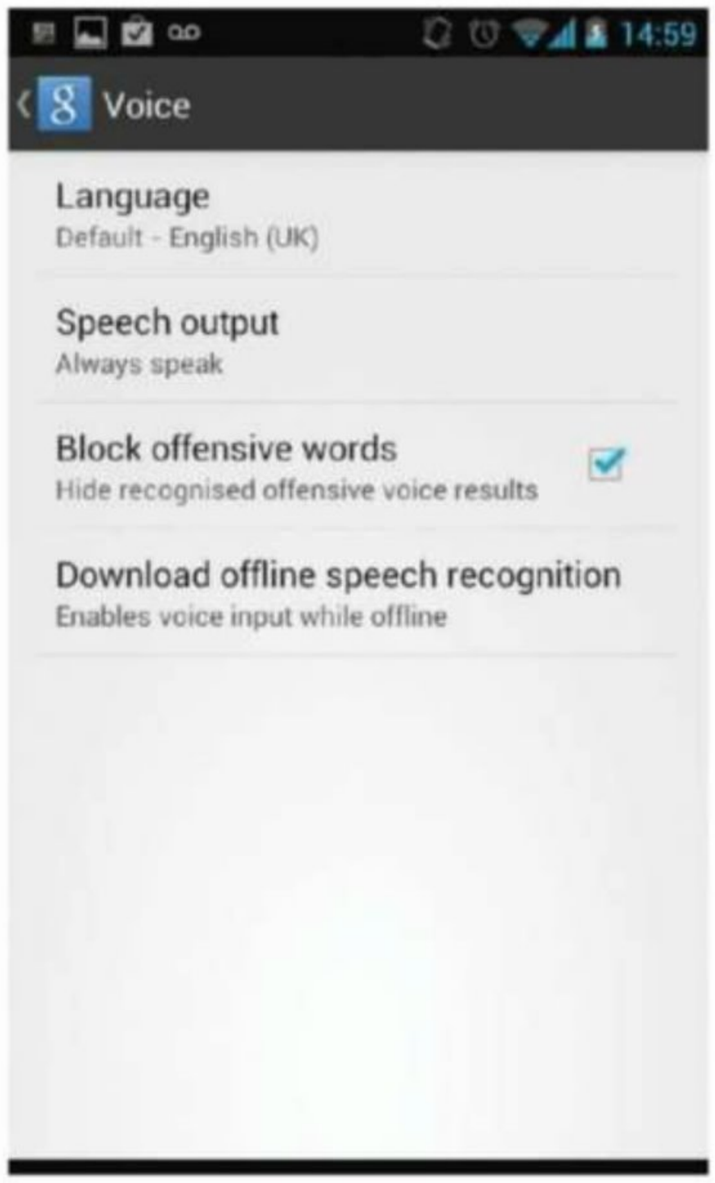
I don't understand...
If voice search *doesn't* understand what you said, you'll usually get an error message asking you to either repeat what you said, or start a new search completely from scratch

Voice Actions
One of the really cool features of Voice Search is its integration with other functions of your phone, allowing you to dictate emails and text messages, call contacts, play audio tracks and even call up turn-by-turn navigation by simply giving the command



4: Get some help

If you're having trouble using Voice Search, or need further help with setting it up, Voice Search has a help system that can be accessed on the voice search main screen.



5: Manage your language

Open up the settings menu to alter phrases or words you want blocked from your search. You can also change the display of the results and even remove the card system completely.

6: Download extra voice packs

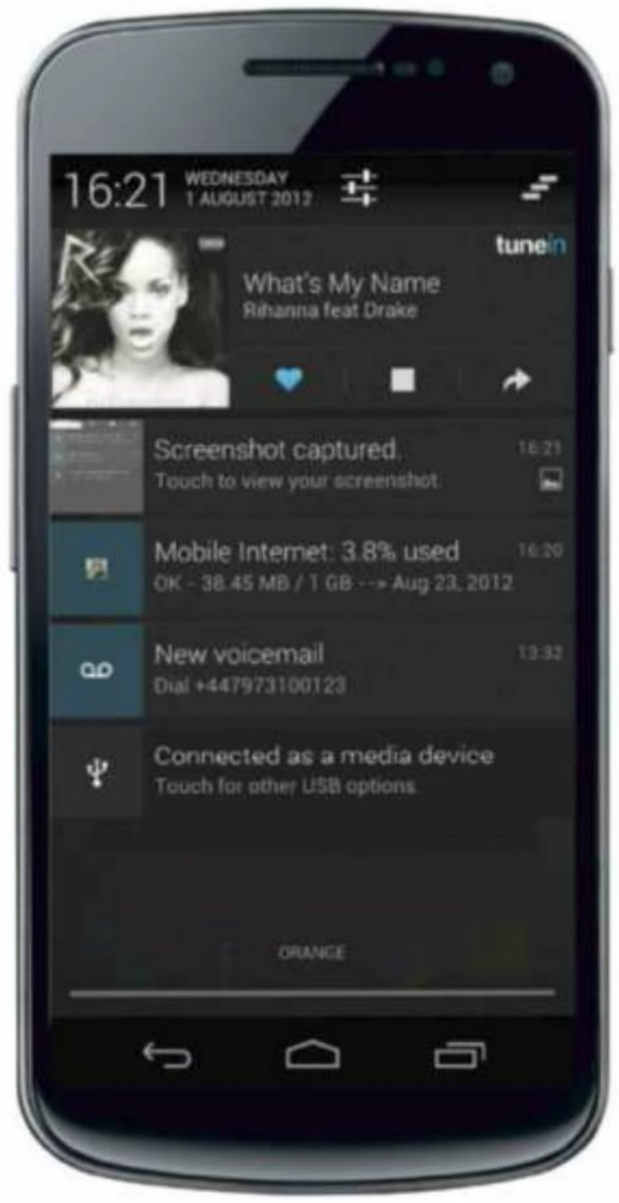
Google boasts an impressive amount of language packs that you can download if English isn't your primary language. All results and searches can be in your native language.

New for Jelly Bean

Time needed: 10 minutes **Difficulty:** Beginner

Manage your new look notifications

The new Notification Centre hosts a whole bunch of new features that make using your phone a lot easier

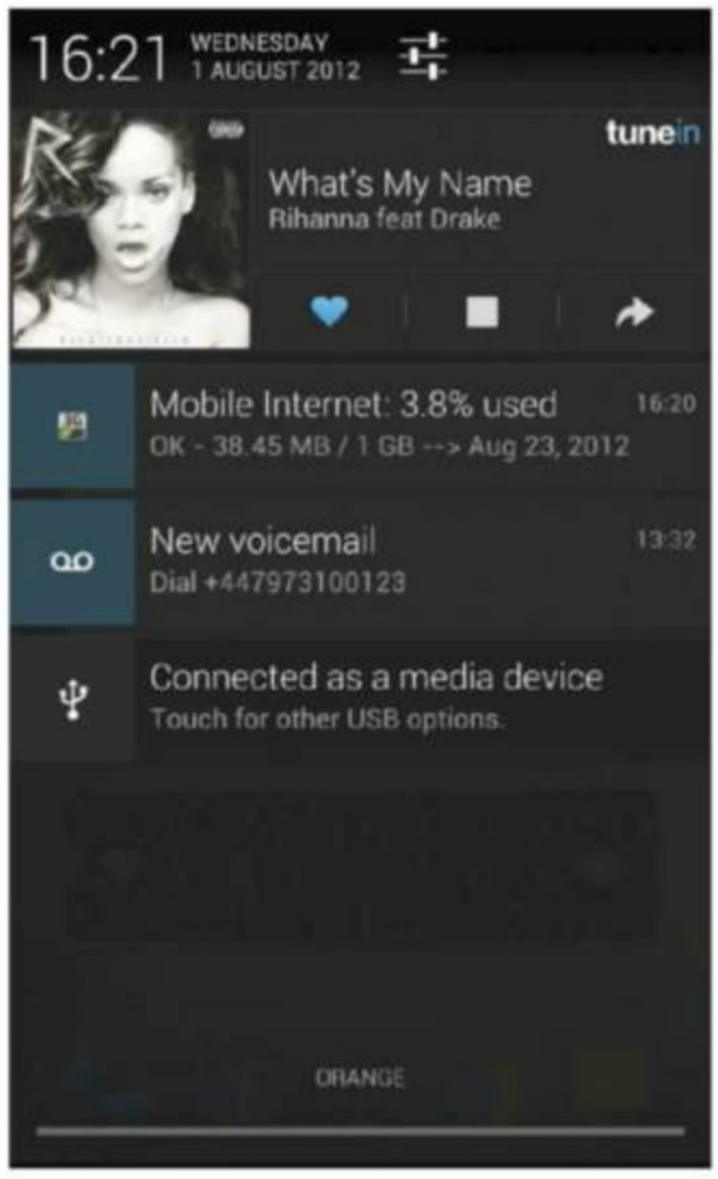


The notifications that line the top of your screen give you all the most important information regarding your device. From info about your battery usage, new messages you've received, or the status of your latest download, the notifications bar is a useful tool. By dragging down the notification bar, you'll have access to a drop-down menu that showcases some of these notifications.

This menu has had a complete revamp with the Jelly Bean update, and is now an essential piece of kit that can be used in conjunction with many of the apps that are available from the Play Store. Android has a big focus on linking apps and features together fluidly, and with the new JB update, the notifications menu can now be linked with some of their newer features.

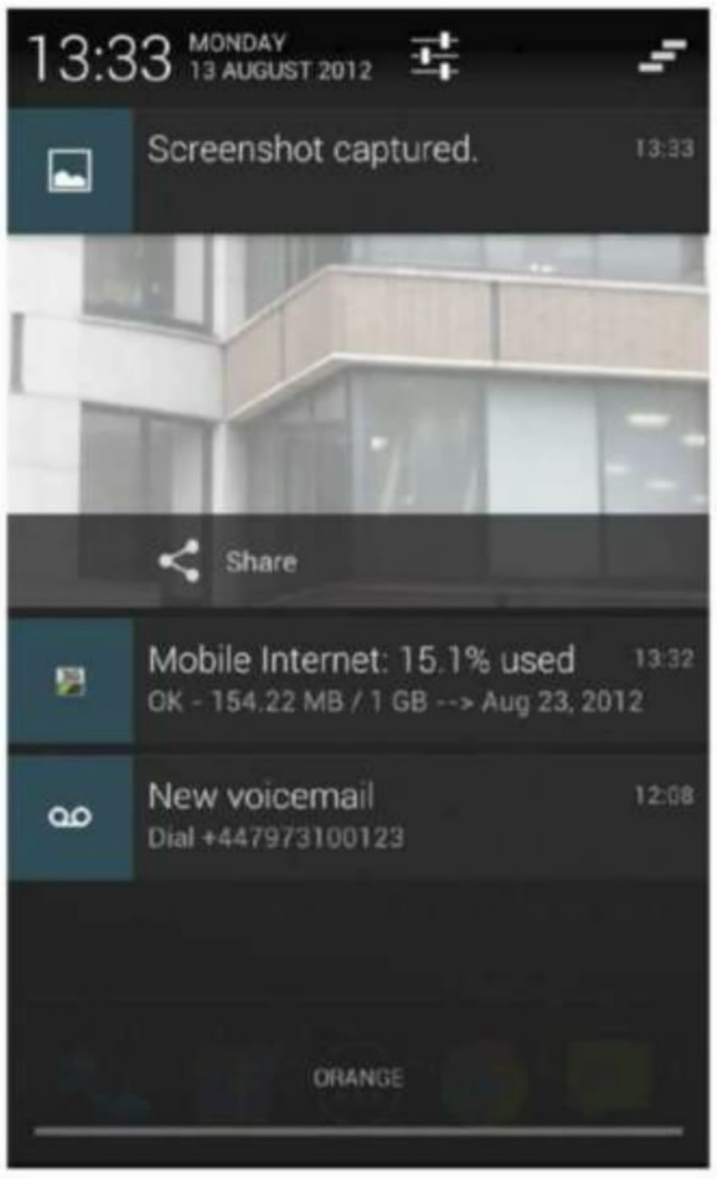
In this tutorial, we'll guide you around the new look notification menu, as well as explain the types of apps you can expect to make use of the new notification system.

Notification Centre | Keep your Android organised



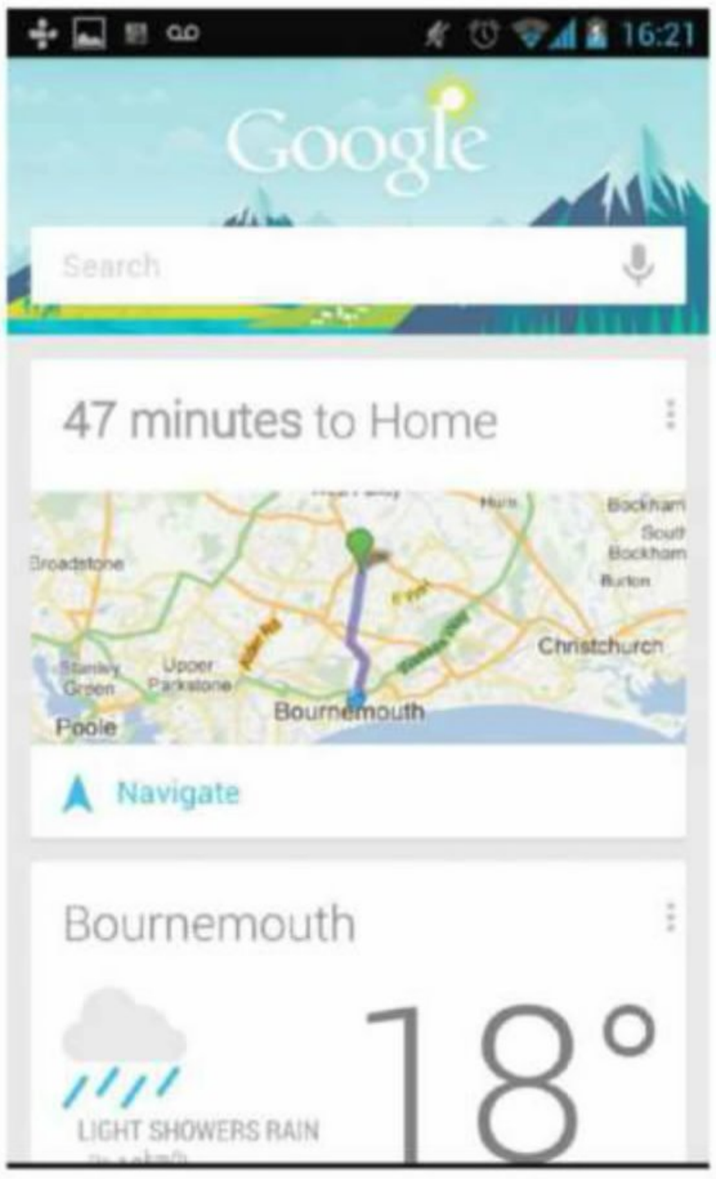
1: Link to third party apps

One of the best things about the new notification menu is that many third party apps now have their own specially designed tabs that can be used to control them.



2: Quick shortcuts

The notifications menu also offers shortcuts to some of the functions on your device. You can gain access to your pictures, take phone calls and disconnect a USB connection.

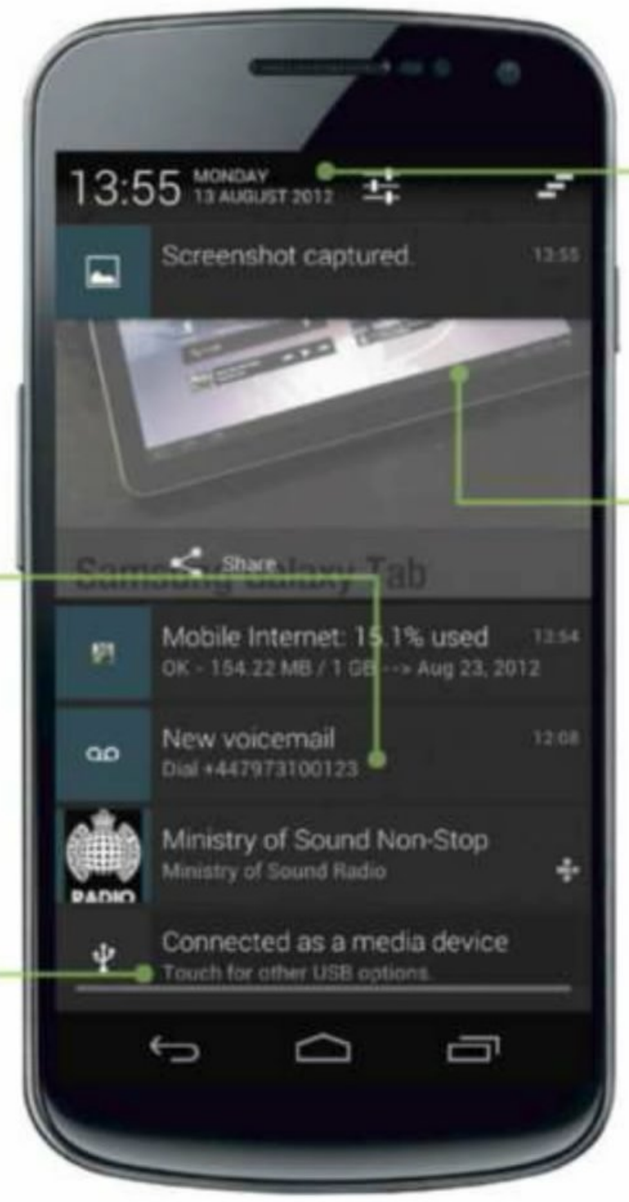


3: Google Now integration

As you start using the Google Now feature, you'll soon find more and more notifications appearing. You can then press on each of these to be taken to the Google Now feature.

The new Notification Centre

Keep track of all your app and device updates



Time and date

One of the more subtle changes is the look and style of the time and date that are listed at the top of the screen. These can be customised at any point

Picture perfect

When you take a photo using the built-in camera on your device, or take a screenshot, a preview tab will open up allowing you quick access to the image if needed, and also the option to share it

Leave a message

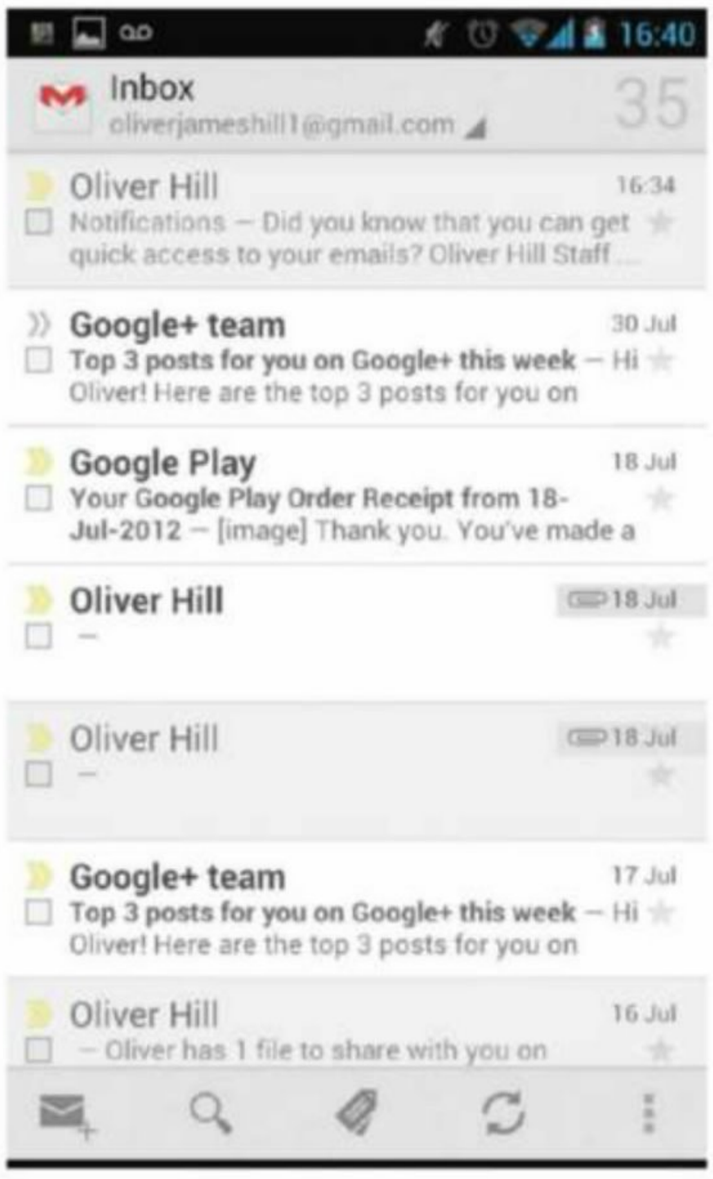
If you can't receive a call, a new tab will open up on your notification menu showing any voicemails you've received. This tab lets you phone your voicemail service instantly

Connected via USB

When you connect your Android device to your desktop computer, a new tab will appear allowing you access to other USB options

Multitasking

With the Jelly Bean update bringing even greater functionality to the Notification Centre, it is now a real time saver. Expandable previews and instant action options mean that you can deal with new notifications without having to leave the Centre, saving you time

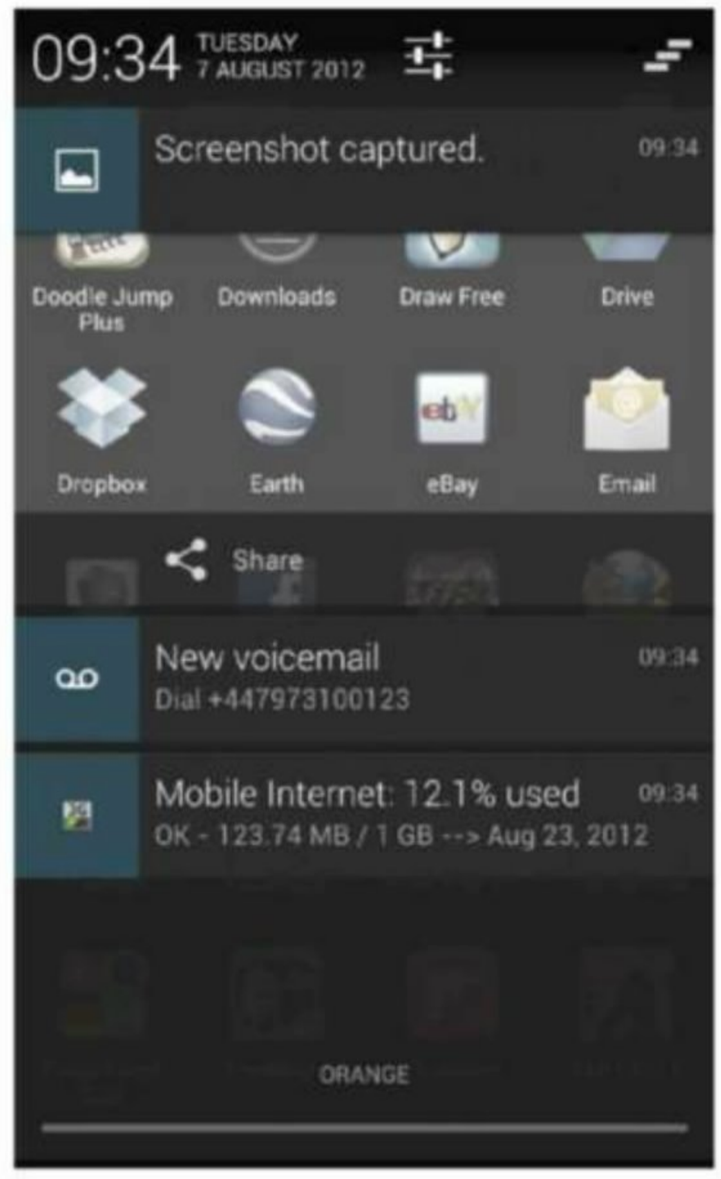


4: Access your emails

Whenever you receive a new email through the Gmail app, you'll be able to see a preview of it via the notifications menu. If the email is from a contact, you'll also see their avatar pic.

5: Open your settings

Instead of going through your app drawer and selecting the Settings app, the small dial button top centre of the drop down menu will give you instant access to it.



6: Remove the tabs

Your notification menu can soon get pretty cluttered. To clear your notifications list, simply press on the three dash symbol on the top right of the app.

App used: Contacts **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Link your apps to work in sync

Learn how to integrate different sections of your digital life into groups

If you're a keen app downloader, with apps arriving and leaving your device all the time, it can be a pain having to go through your overcrowded app drawer to find the specific app you want to look at. Most of the stock Google apps may not really be that interesting to many people, but within them lies the possibility of being able to link them to various other apps, making it a lot easier for you to go to a new app without having to scroll through endless pages of icons.

It isn't just the stock Android apps that you can link together on your device. You'll find apps such as Facebook, LinkedIn and Flickr can be interlinked to make it easier to switch between them. A lot of the changes are subtle, but will uncover a lot of features you probably didn't notice before.

In this tutorial we'll show you several of the apps that can be linked together, as well as a recommendation for an app that will make linking your other apps together a whole lot easier.

Order of preference

You can tap and hold any of the small three-line handle icons next to each app to drag it up and down the list, placing the apps that you use more frequently nearer the top for quicker and easier access

Speedy log-in

Your sign-in status – or rather, signed-out status – for each app is displayed beneath its title. To log in to an app directly from the Contacts app, simply tap any of the apps listed that show 'Logged out. Press to log in'

Turn on tapps

App accounts that have been linked together with the Contacts app can be shown or hidden within your contacts' pages by simply checking or unchecking the boxes alongside each in the settings

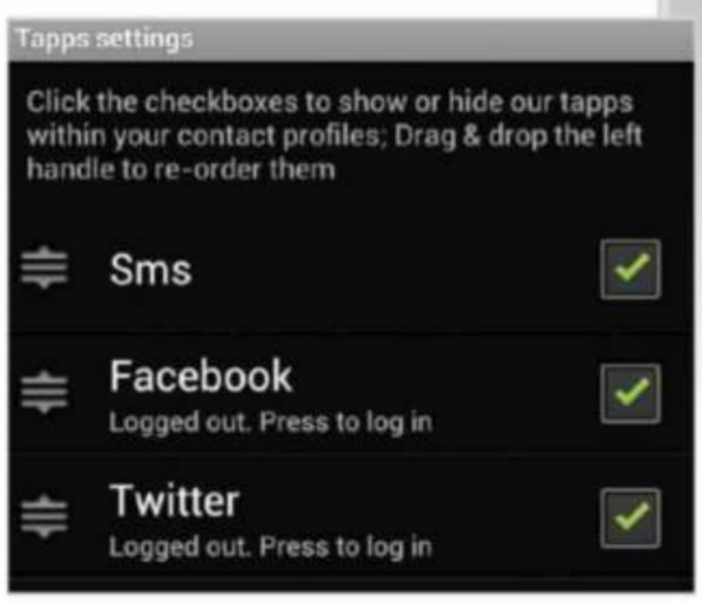
Linked up

Once your various web accounts have been linked through the app, you can navigate to, for example, a friend's Twitter or Foursquare account directly from their contact profile on your phone

Links apps | Sync your accounts

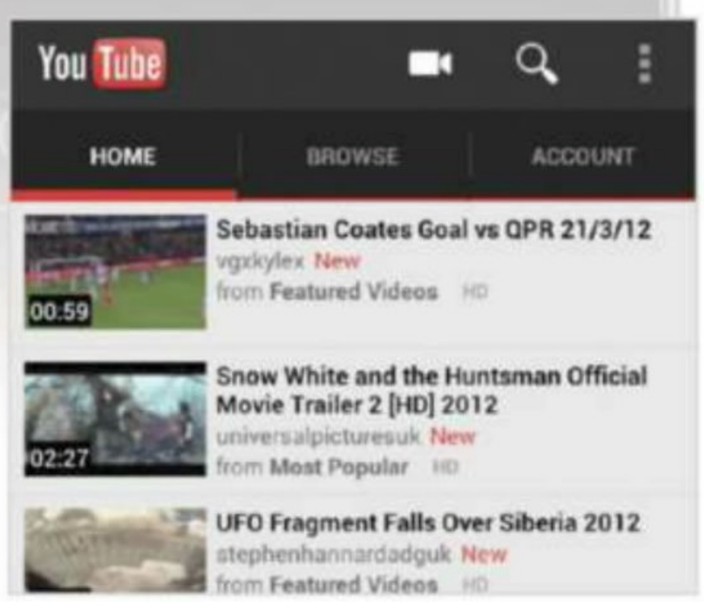
1: Download Contacts

The best way to organise all the contacts stored on a variety of accounts is to download the Contacts app from Google Play. When you open the app for the first time, enter the details of all the social media accounts you have. This may take a few minutes.



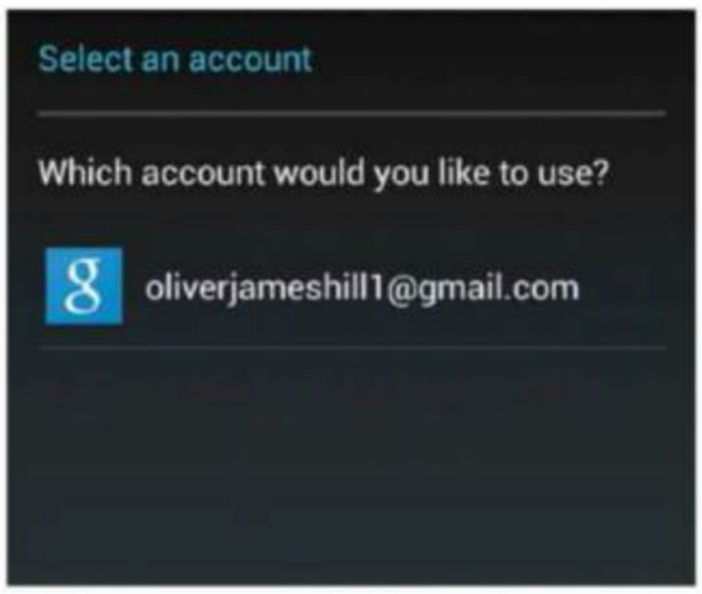
2: Social media

With the Contacts app open you can now choose which apps you want to link in one place. The accounts you choose to link with make them accessible all through this single app. Depending on the contact you press, the associated page will then open.



3: Get the YouTube app

Some Android devices come pre-installed with the official YouTube app. If your smartphone doesn't have it, install it from Google Play. Once the app has downloaded, open it up and create a YouTube account if you have not got one already.

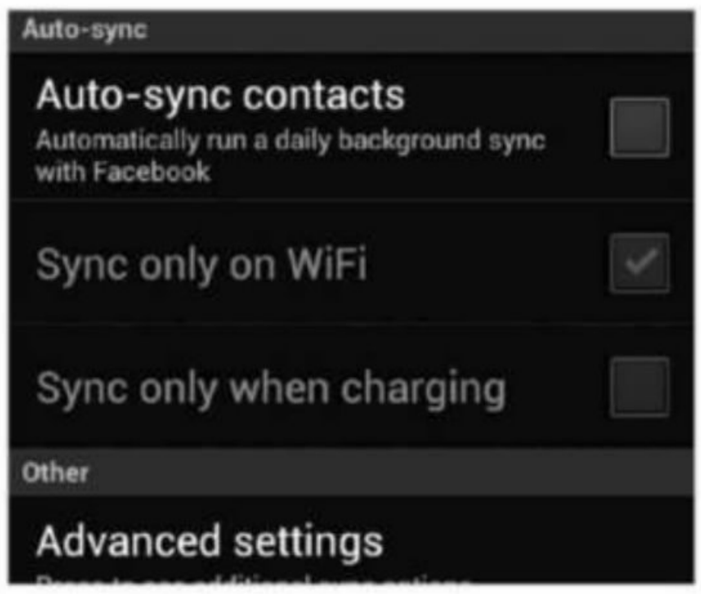


4: Link YouTube and Google+

At the bottom of the YouTube login page you can link your Google+ account, meaning that video likes or comments will appear on your G+ feed along with recommended videos.

5: Google+ and Gallery

You can also link Google+ to your phone's Gallery app from the Google+ login page. This allows any photo you take to be automatically uploaded to your G+ page.

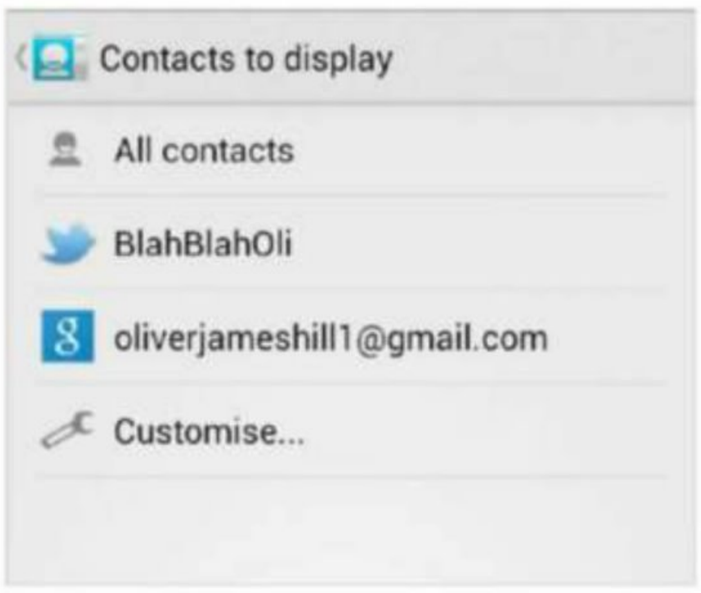


6: Facebook and Contacts

From your Facebook news feed, press the Options button and go to Settings. Auto-sync friends with your Contacts app so you can tap on a contact to go to their Facebook page.

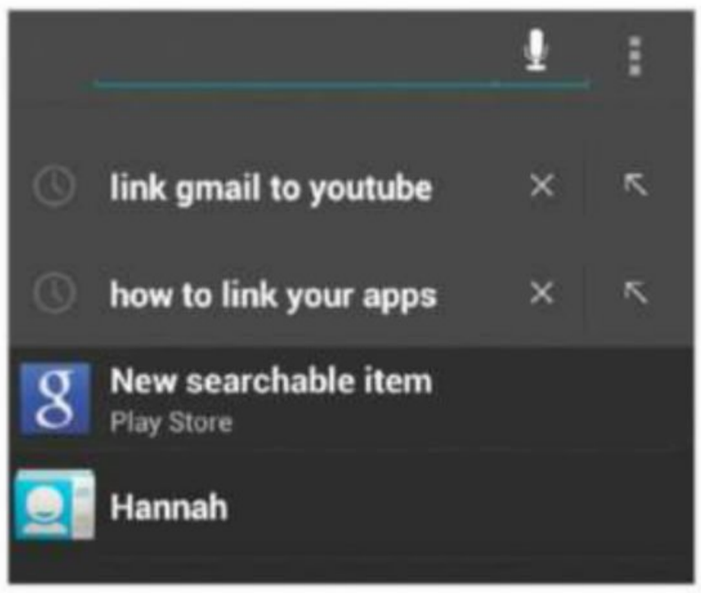
7: Twitter and Contacts

Similar to Facebook and Contacts, you can sync your Twitter account too. Linking your Twitter feed enables you to open a contact's Twitter feed directly from your Contacts app.



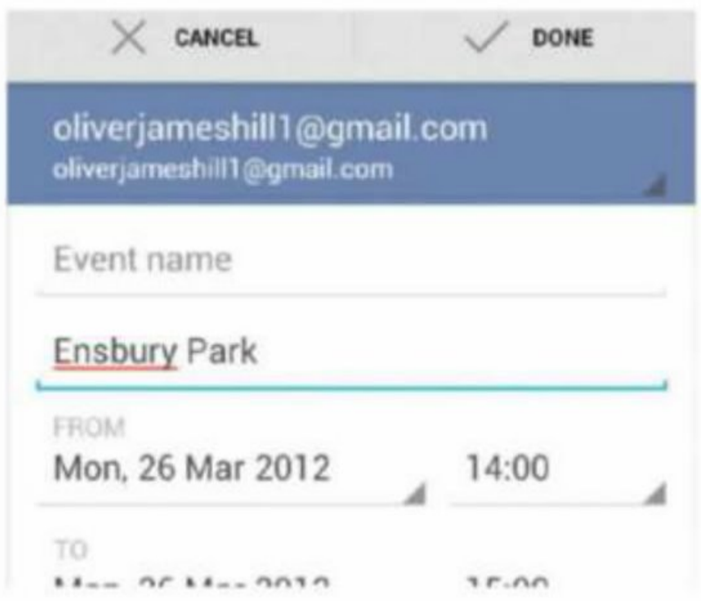
8: Contacts to display

After linking several of your accounts to your Contacts app, it's advised to go through and delete any duplicates. Using the Contacts to display menu in Settings can help with this.



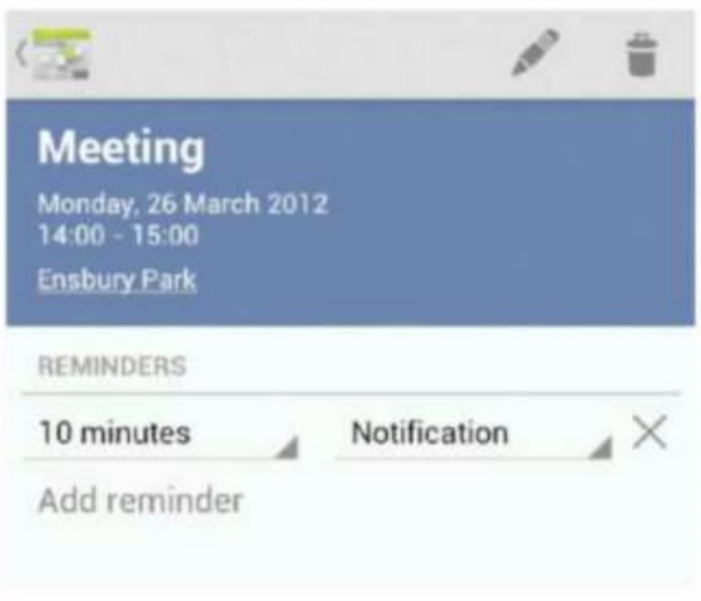
9: Link Google searches

Open up the Google Search app and you'll see all the recent apps and settings you've configured and entered. Tap any listed option to go to the corresponding app or menu.



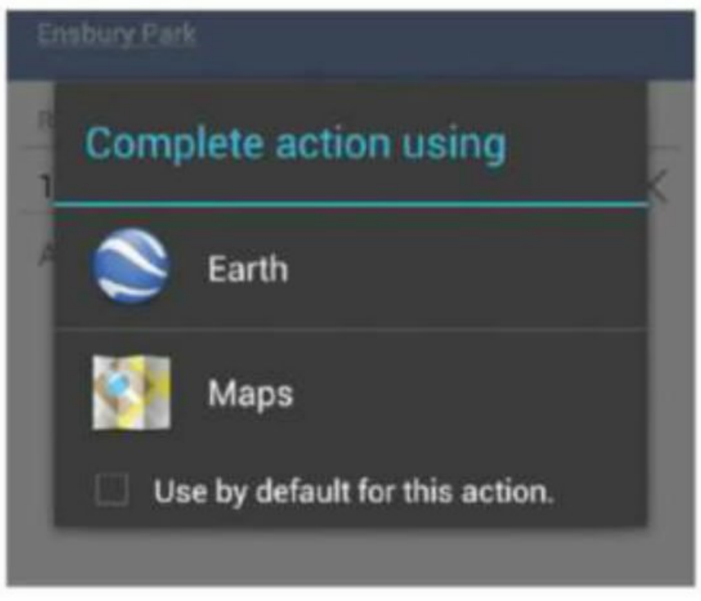
10: Open your Calendar app

One the best links that can be made is between the Calendar and Google Maps apps. To get started, simply open up the Calendar app and create an appointment.



11: Input a location

When you type in a location and save it, the Calendar app will link with the Google Maps app to show you the exact location on Google Maps' detailed user interface.



12: Complete action

When you tap the location within Calendar, you may be asked which app you want to load the visual map with. Newer Android phones may be able to use Google Earth.

Time needed: 10 minutes **Difficulty:** Beginner

Limit your Android's data usage

Exceeding your data limit can be costly. Follow this tutorial to avoid paying charges

We now live in a society where we're using smartphones that enable us to browse, download and stream more than ever.

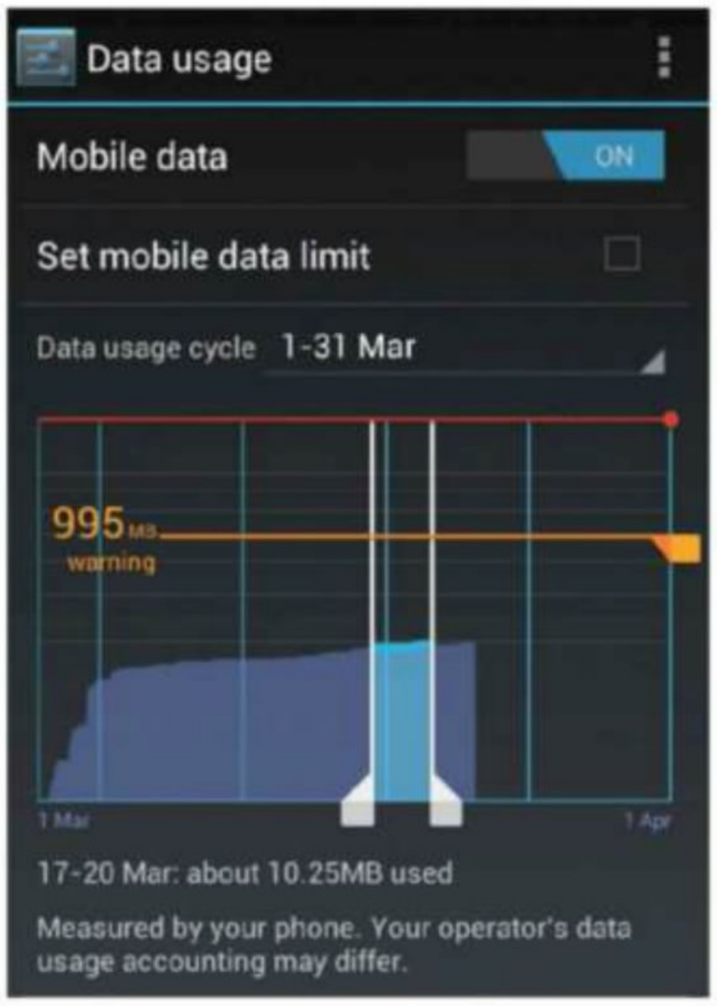
Although we have all these capabilities, it's important to remember that they all require data to function. If you took your phone out on a contract, there's no doubt you have a strict amount of data you can use per month. If you happen to go over that limit, then the chances are that your bill will increase.

You may think that you'll never go over your data limit, but it can be a surprisingly easy mistake to make. Apps can run in the background, and while doing so they can still use up your precious data. Therefore making sure you're monitoring your data usage is a very important job. Luckily, all of you with a device running Ice Cream Sandwich or Jelly Bean have a handy page that you can play around with to make sure you never breach your data limit. Here's how to get started with it.

Data usage | Monitoring data and setting limits

1: Wireless & Networks

To kick off this process, open up the Settings app from your app drawer and navigate to the Wireless & Networks menu. Next press the Data usage tab from the options provided.

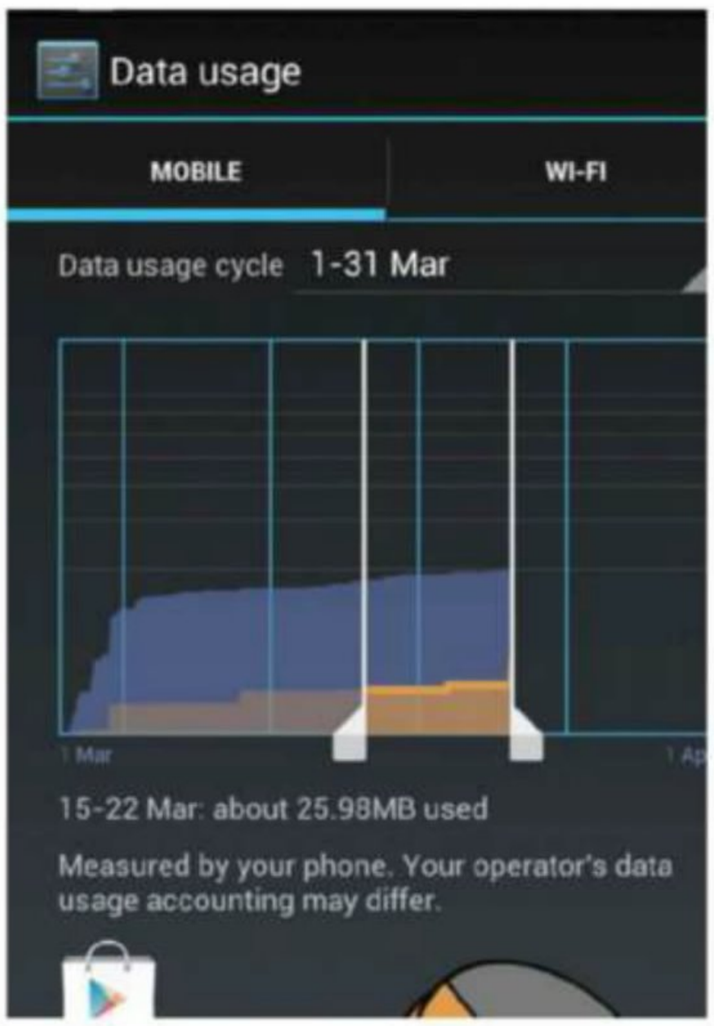


2: Data usage screen

At first the Data usage screen can look a little confusing, as there are several things all going on at the same time. But with practise you will be able to navigate around it with ease

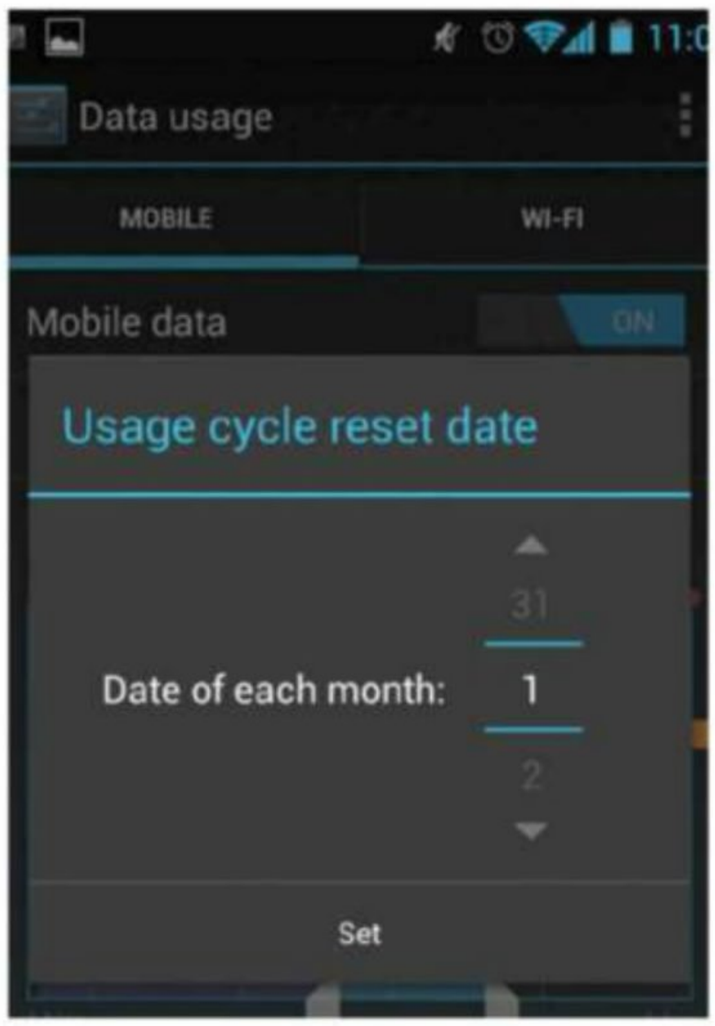
3: Monitor app usage

Scroll down the Data usage screen and you'll find a list of all your installed apps. As you will see, they are ranked in order of which uses the most data on your device.



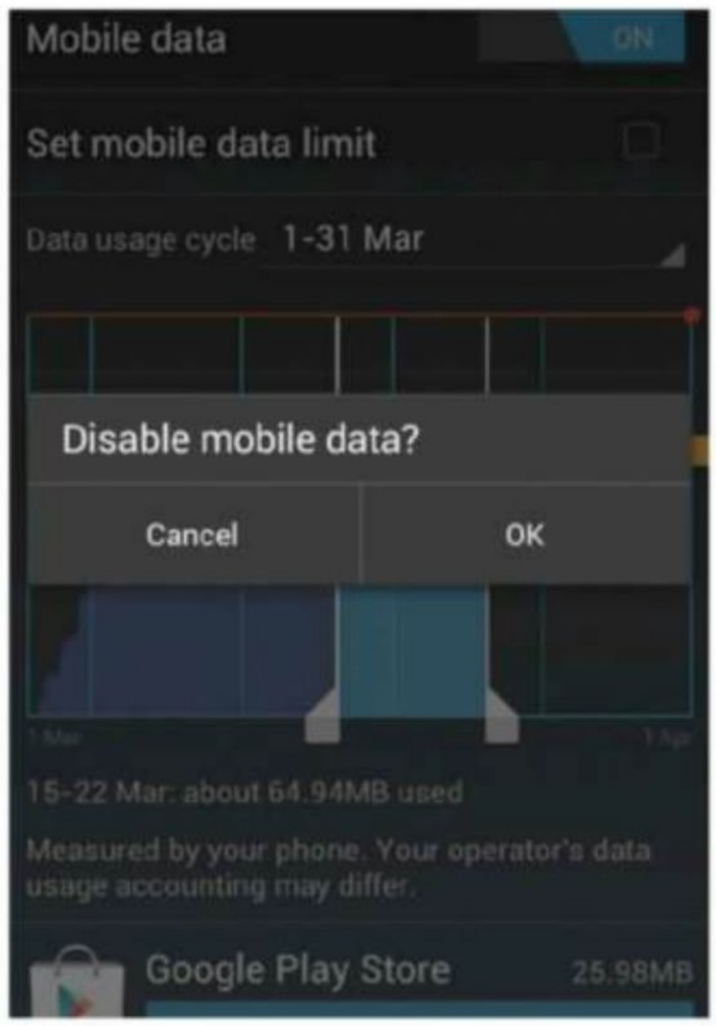
4: Check your charts

Pressing on on one of the listed apps will take you to a screen outlining how that particular app is using your data. This information is displayed as a graph and a pie chart.



5: Reset your cycle date

On the Data usage main screen, press the Data usage cycle tab and then select the correct timeframe that lines up with your monthly contract dates.

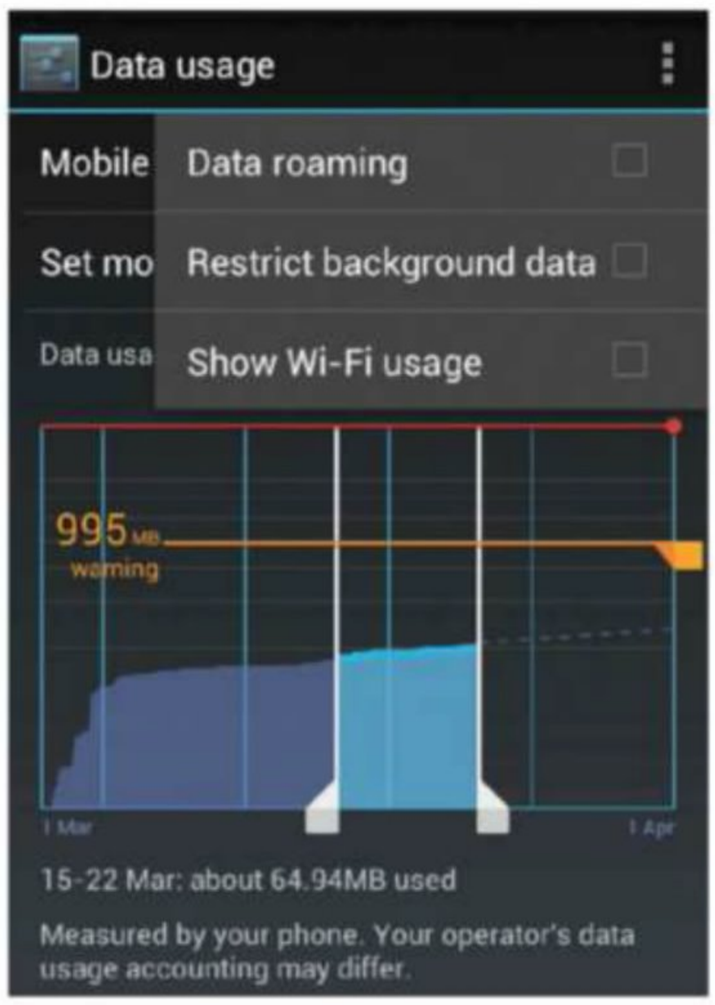


6: Disable mobile data

To temporarily disable all your mobile data – thus stopping your apps from self-updating – then all you have to do is press the Off button on the Mobile data switch on the main screen.

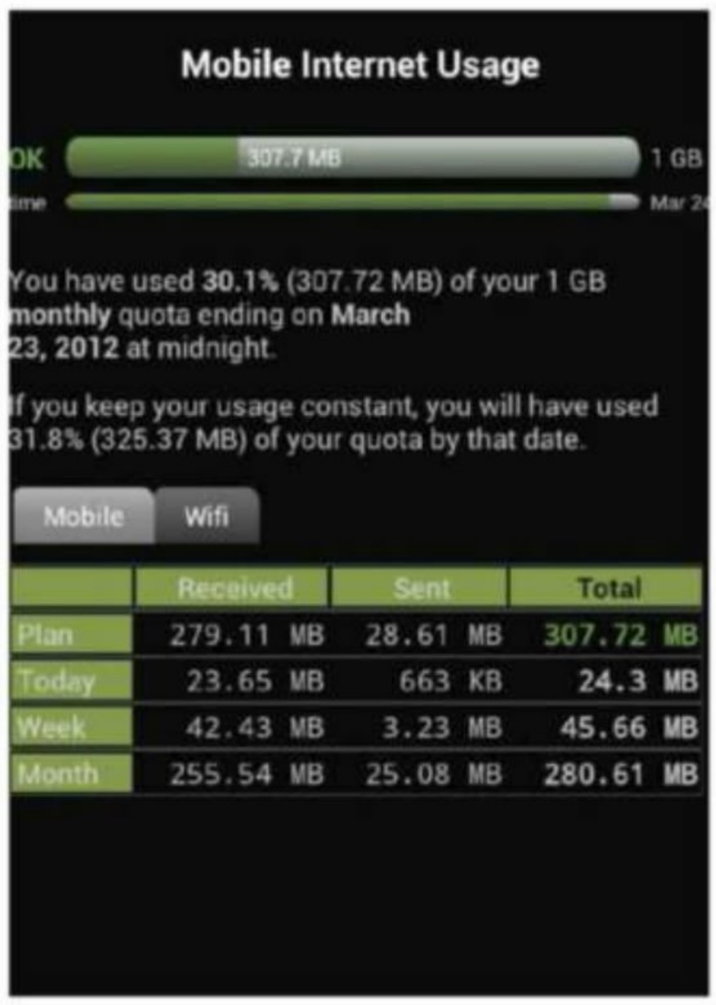
7: Limit data usage

To only limit your mobile data, adjust the red bar on the chart located on the main screen. If you surpass this limit, then your mobile data connection will be automatically disabled.



8: Other options

On the main screen of the Data usage page, press the options symbol in the top-right. This will open a drop-down menu that outlines further ways of altering your data usage.



9: Monitor apps

There are plenty of other applications that will help monitor your data usage. For instance, 3G Watchdog can keep tabs on both your 3G data usage and the data you use over Wi-Fi.

New for Jelly Bean

App used: Google Now **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Get started with Google Now

Keep your life in check with Google's new companion feature

Google Now is an intelligent piece of software that monitors certain things about your life, and in return provides you with useful information that you can use to your advantage. This information is shown in a variety of cleverly designed panels.

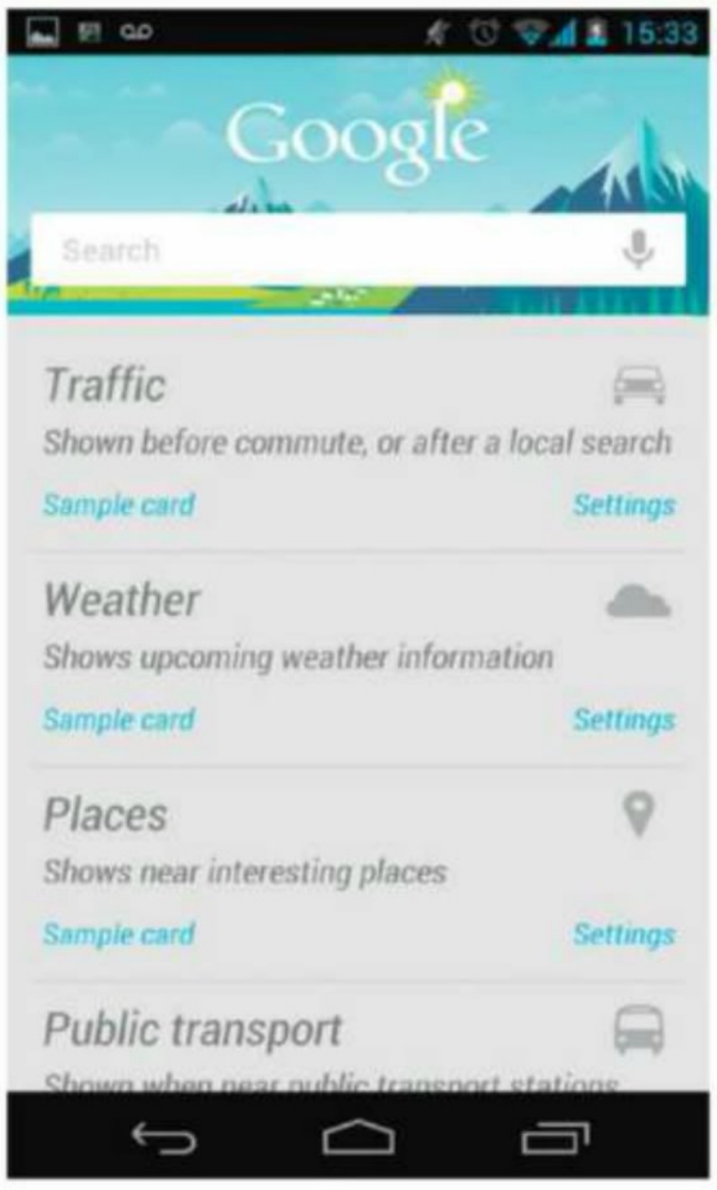
The longer you allow Google Now to monitor your life, the more information it can provide. For example, after a few days of performing your commute to work, Google Now will then begin to notify you of new ways you can reach your work, as well as give you up-to-the-minute info about any potential delays that you may encounter. The range of topics that Google Now covers is pretty impressive, and after a few days of having it, you'll soon see the benefits of using it.

Any new information that Google Now wants to share with you is displayed in the newly designed notification menu, from which you can then select to get further information about each piece of info specifically. Read on to explore some of the basic uses of Google Now, and how you can get the best out of it.

Google Now | Get updates tailored to your lifestyle

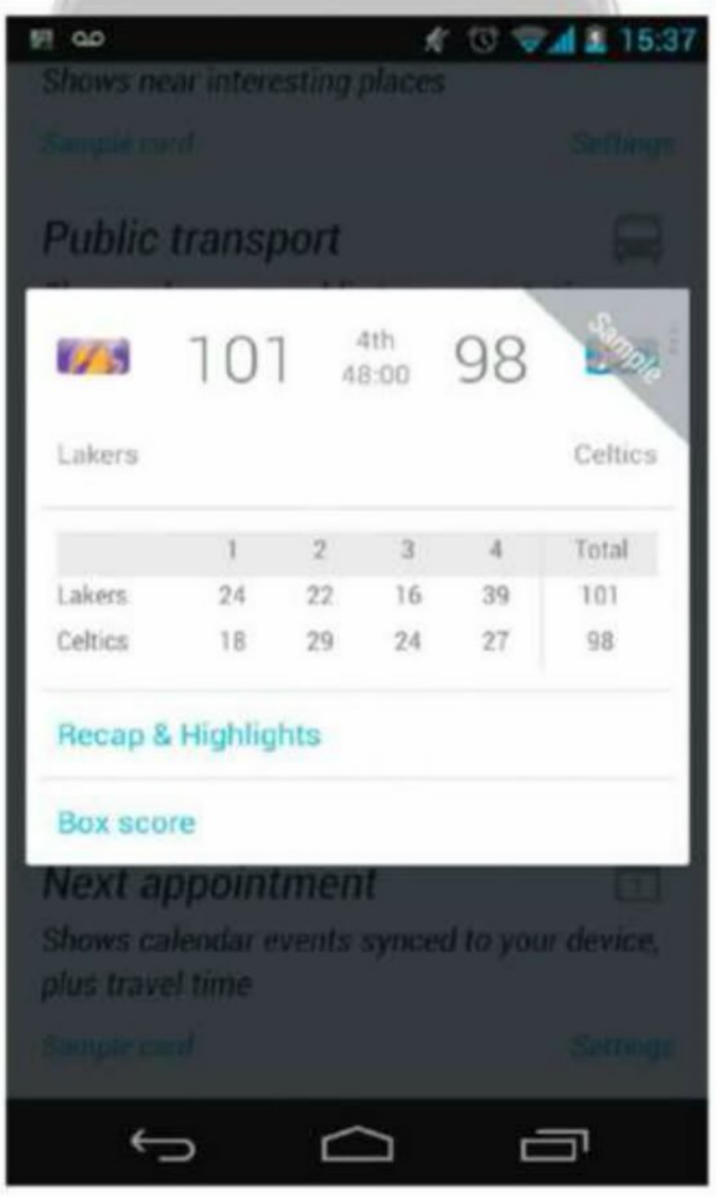
1: Home Screen

Google Now can be accessed from anywhere on your phone. To access it, simply drag it up from the bottom of the screen to the Google icon that appears.



2: The first time

When you open up Google Now for the first time, you'll have to follow the provided tutorial. Then you'll be shown the range of cards you can access once you regularly use the feature.

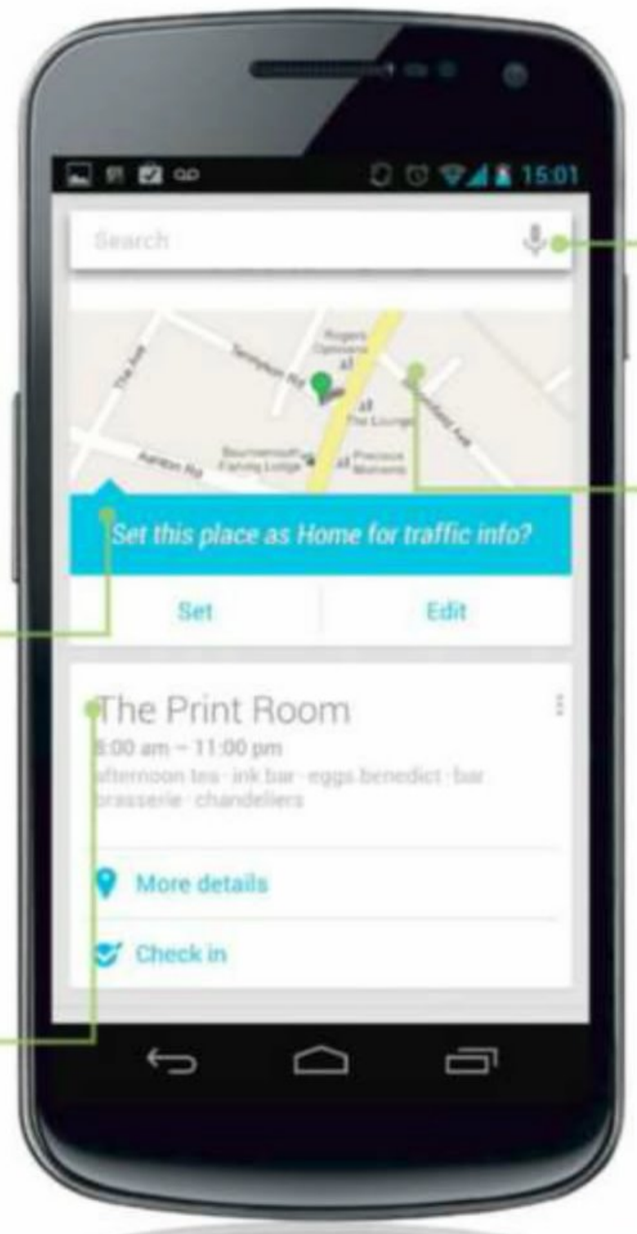


3: View sample cards

After the tutorial you'll be able to take a look at the design of the cards, find out what to expect, and have the chance to disable any cards you don't find relevant to you.

Google Now notifications

Find out how to get more from Google Now info cards



Start a voice search

As well as starting a text-based search using the bar at the top of the screen, you can also press on the microphone symbol to start a voice search using Google's revamped voice recognition system. This might take a few seconds to load

Check your notifications

The new notifications bar with the Jelly Bean update often displays info related to Google Now, so be sure to check it regularly. It'll also alert you of any changes to your cards, like whether you'll hit traffic on your commute

Link with other apps

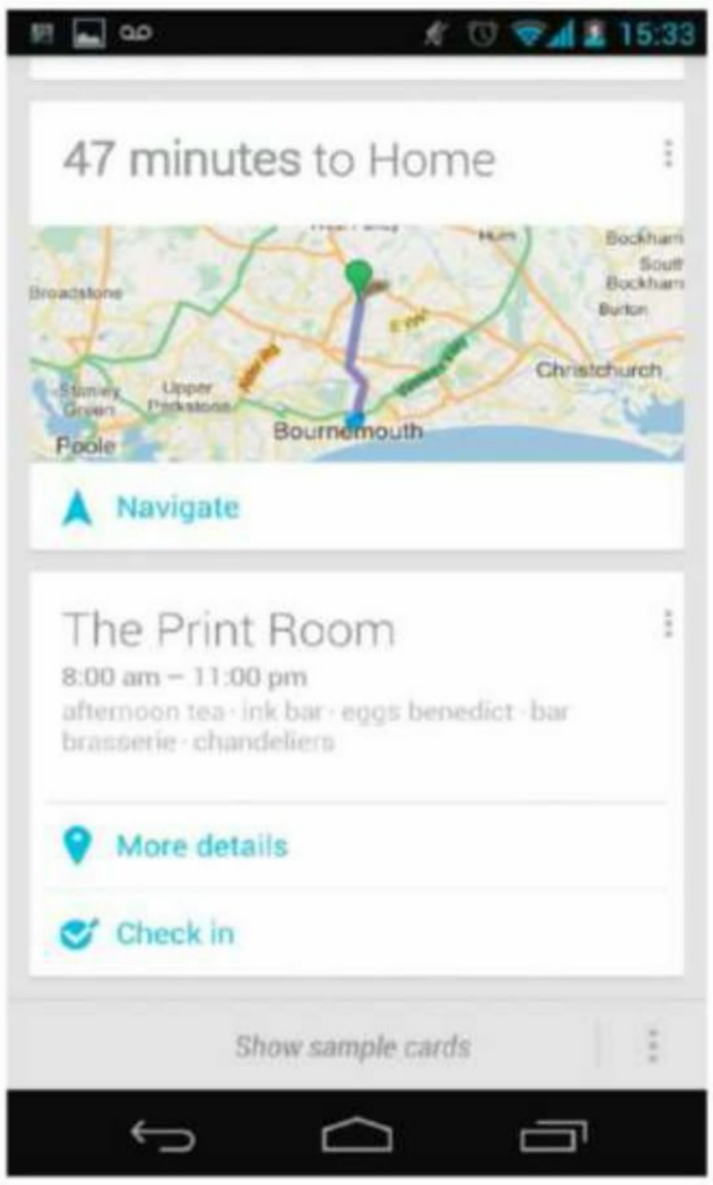
You'll find that certain panels you're shown are closely linked to many other Google apps. For example, when you use the commute panel, you'll see your route planned out within Google Maps, which you can then open up directly

Pinpoint your details

You won't get the full benefits of Google Now until you've used it for a while. It tracks your movements, and specifically pinpoints places you visit often, so after a few days the info should be more personalised

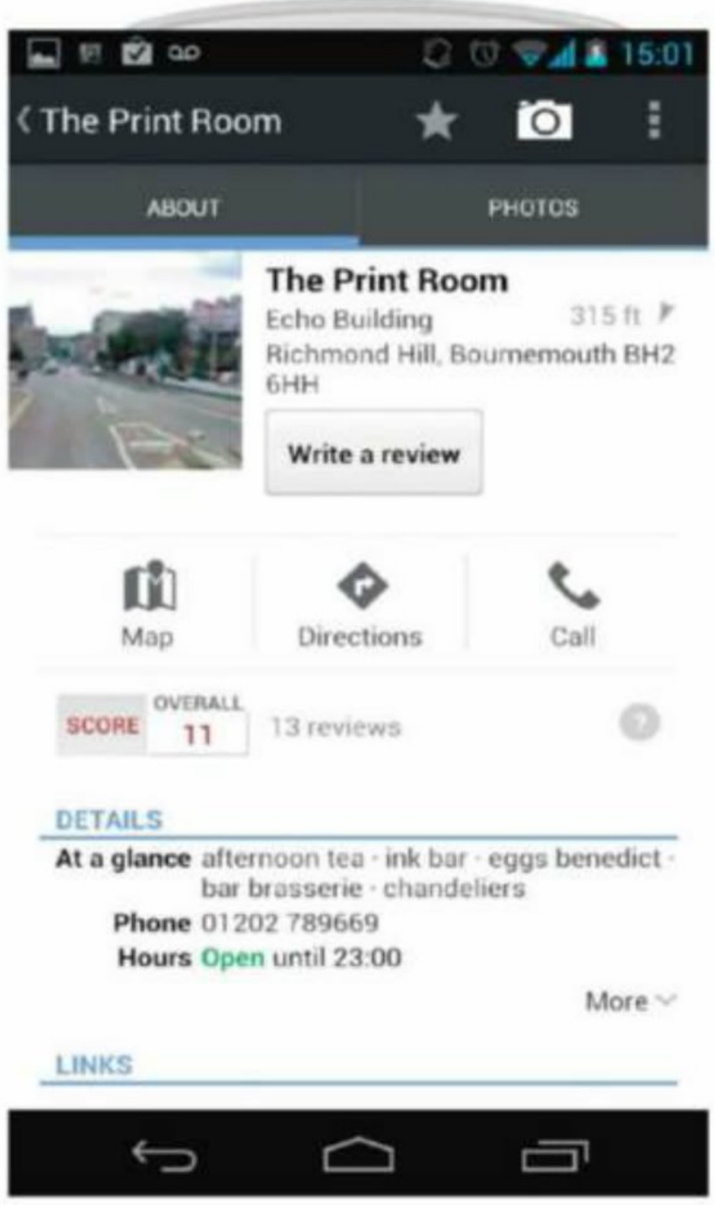
Smart thinking

Once Google Now is really up and running, and has had chance to get to know your lifestyle, it will start giving you some really useful information. If you search for your favourite sports team, for example, you'll start receiving updates on all of their matches



4: After a few days

Google Now will begin notifying you of new cards based on the data it has collected on you. If your GPS is enabled, one of the first cards that'll often appear is the weather card.



5: Get more info

Each card plays host to a lot more information that can be accessed by simply pressing on one of the cards. Google Now can alert you to landmarks, restaurants or places you might like.

6: Pinpoint your cards

If you are receiving too many or not enough notifications from Google Now for your liking, you can change the settings by pressing the options button on the right.

New for Jelly Bean

App used: Google+ **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Connect to the Google+ network

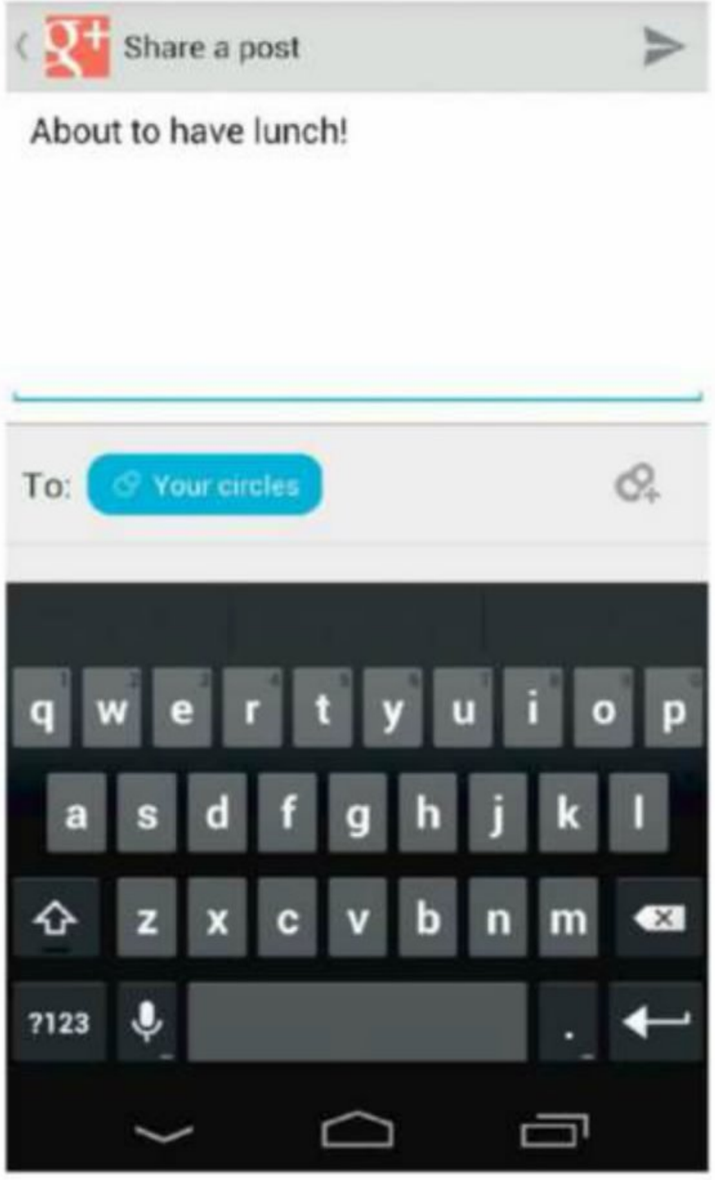
Google's social media app has undergone plenty of changes in Jelly Bean that you need to explore right away

Google's very own social network, Google+ has seen plenty of updates recently, and its fan base just keeps on growing. A lot of this popularity is due to the social media sites coming as a stock app on most Android phones. It's so simple to connect and share with everyone you know. The way we use messaging has improved, and the overall experience is a whole lot easier to use.

For those who are still new to Google+, the messaging system is rather easy to get to grips with, and a lot of the social media features are explained when you first uncover them. With the Jelly Bean update coming out on more devices all the time, Google+ has seen plenty of new features added to it, as well as some of its older features refined to make them a little easier to use.

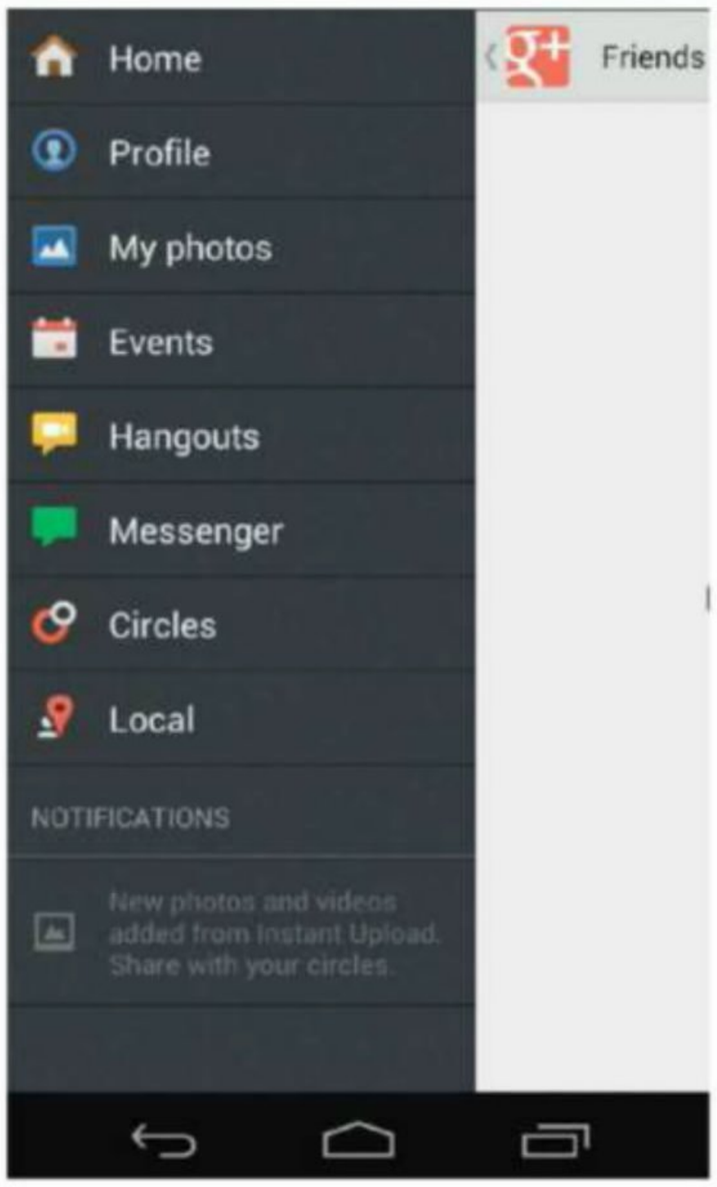
In this tutorial, we'll guide you through some of the old features that have been altered as well as show you just how to use all the great new features that have been added.

Google+ | Stay social with Google's revamped service



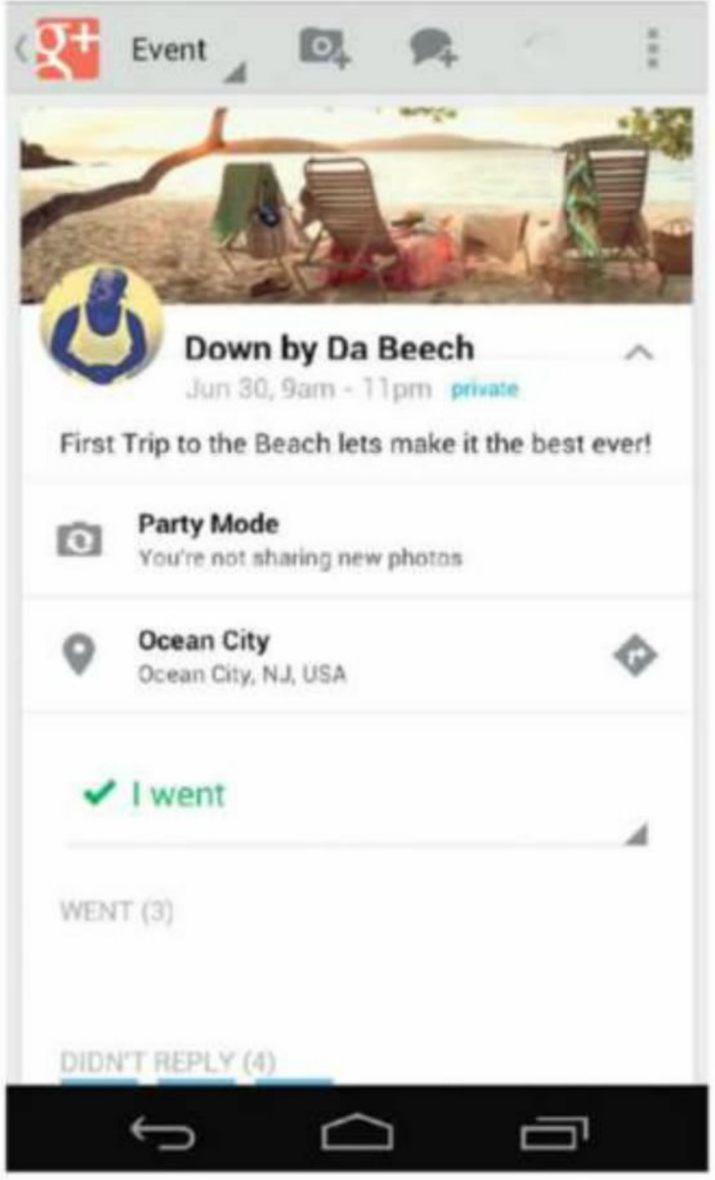
1: Share a post

There are plenty of features to uncover in Google+. Adding new members to your circle can be performed here, and video and audio files can be added to any messages you share.



2: Fast new menu

By opening up the side menu you'll notice a few changes have been made. The menu is faster to navigate, icons have been revamped and new sub menus have been added.

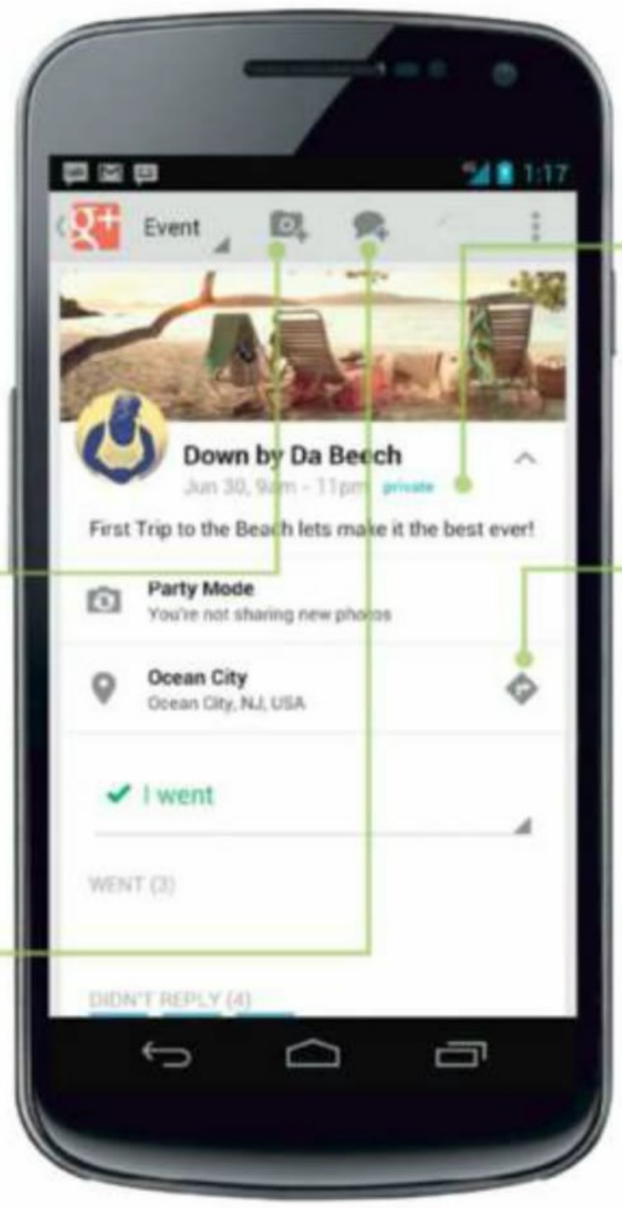


3: Events and parties

The new Party Mode and the improved events page make creating social events a lot easier. You can invite people on your contact list, or by searching other Google apps.

Inside the Google+ app

Keeping close to your friends and family just got easier



Add new photos

To showcase some of your photos of your party, press on the camera icon at the top of the app. This will take you directly to the Gallery app where you'll be able to upload photos, or add them from other social media sites

Invite some friends

You can invite people to your party, as well as message them at the same time by selecting the speech bubble icon at the top of the list. Confirm everyone you want to add to your party, and press the OK button once done

Public or private

If you don't want everyone turning up to your private party, then make sure that it isn't set to public. The little blue writing next to the time and date indicates whether the party is public or private to your friends. Pressing it will alternate between the two

Tag your location

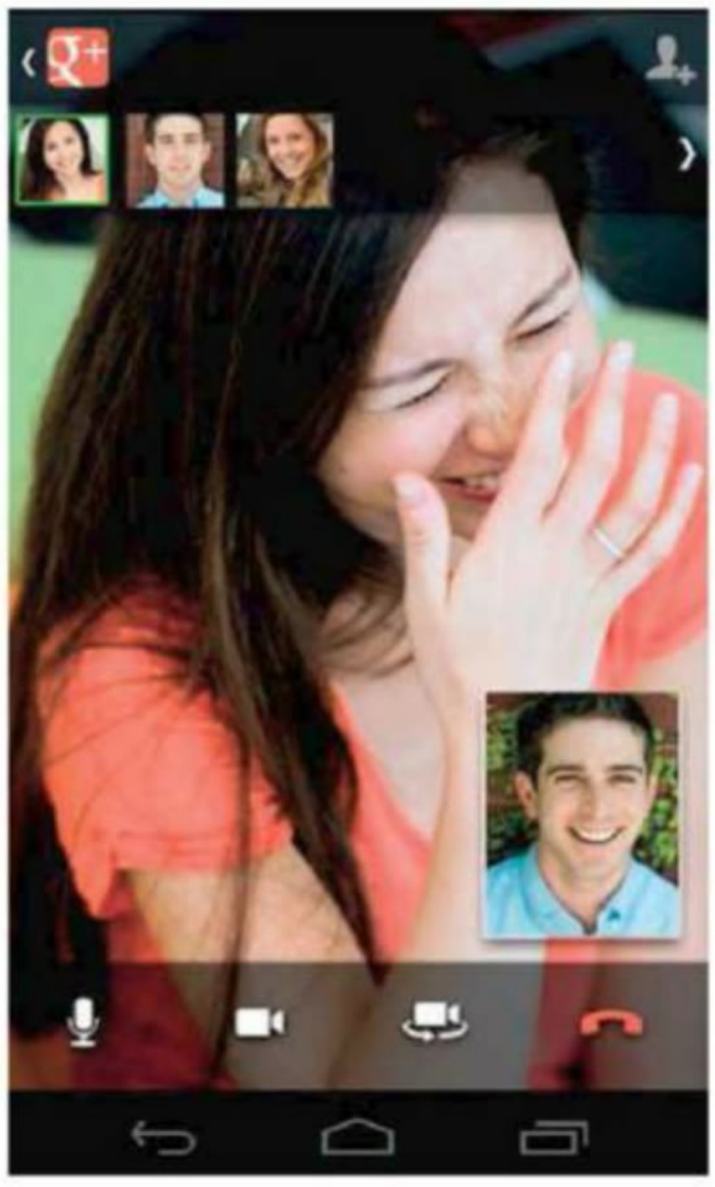
While in Party Mode, you can add a location to your party by selecting the Google Maps symbol halfway down the page. Pressing on this symbol will open up Google Maps, from which you'll be able to select your exact location

New notifications

Desktop users of Google+ will already be familiar with the '+1' (i.e. share) button that can be used to send updates to friends about things you've discovered. With the Jelly Bean update, you can now '+1' directly from the new and improved notifications panel

4: Improved mass messaging

With the new Jelly Bean update in place, adding people to a conversation is a whole lot easier, and the keyboard doesn't crash as it sometimes did previously.



5: Mass video chat

One of the new features is the mass video chat option. Using your front-facing camera, you can start a video chat with someone, and add other people to the conversation too.

6: Easier to navigate photo streams

The whole photo album app responds a lot quicker than it previously did, meaning that scrolling through large quantities of photos is easier than ever.

App used: Google Goggles **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Search pictorially with Google Goggles

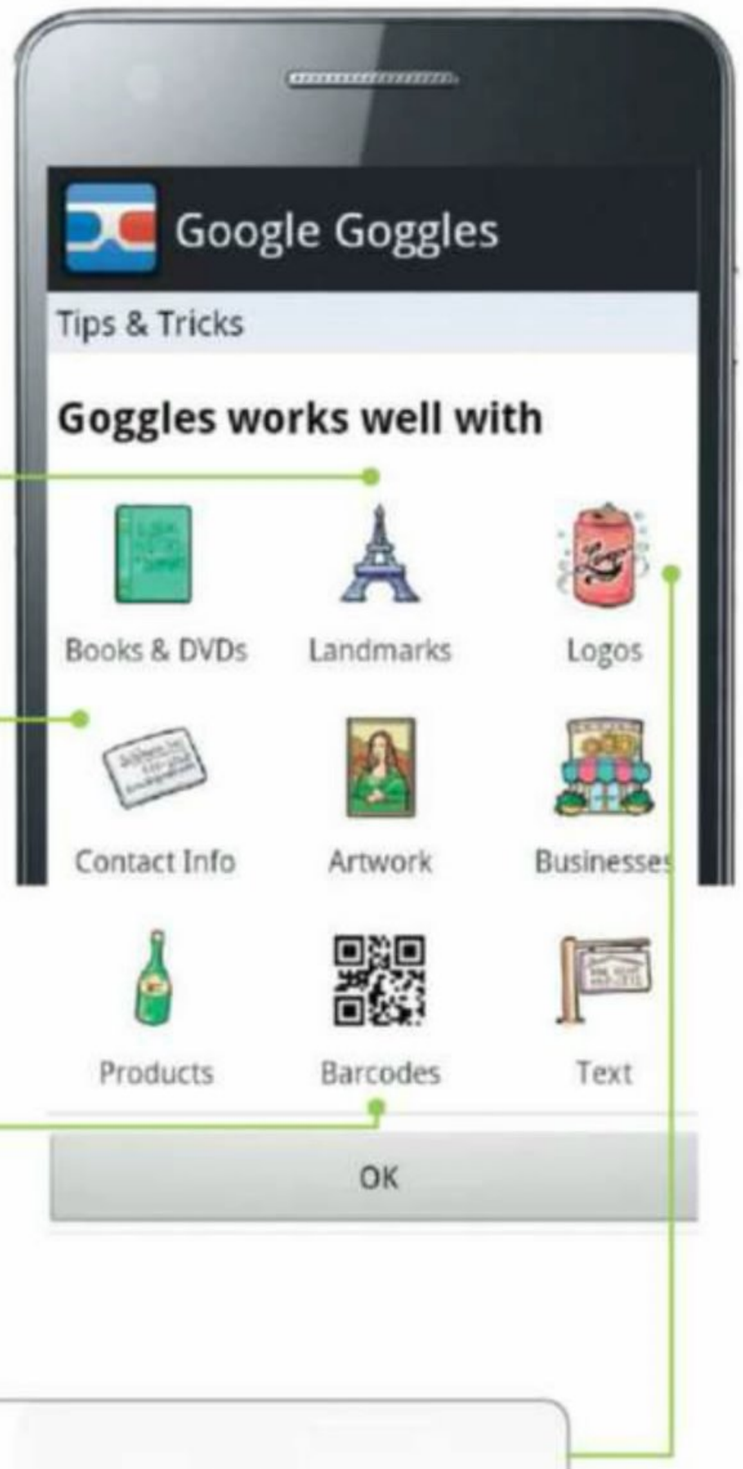
Use your camera to scan objects

Google Goggles is something of a marvel and it's only available on Android. It works pictorially, using image-recognition technology to identify landmarks, art and so much more. It comes in handy as a barcode and QR scanner and it also lets you add contacts from business cards, just by passing your phone's camera over it.

Goggles can also translate between languages. By opening the app and selecting the Snapshot option from the main menu, you can use your camera to point at a word or phrase and the app will translate it for you once you have selected the words that you wish to decipher.

In this tutorial, we're going to look at how you can point your phone at an object and have the app search for the item via Google, bringing up suggestions and showing similar items.

It's one of those apps that every Apple iOS device owner would love to get their hands on because it's so versatile and incredibly useful.



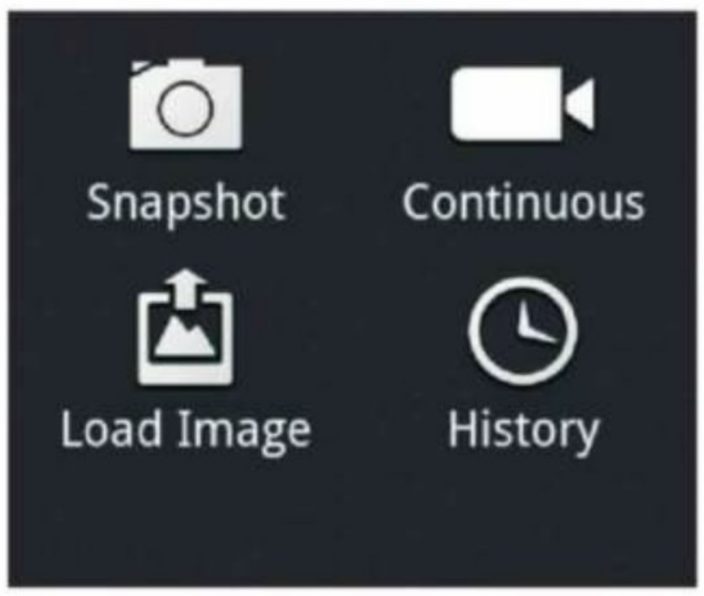
Landmarks
Google Goggles is an invaluable travel guide. You may not guess a building's use, but using this app you will soon be able to find out as it scans the building and matches it to its vast database

Contact info
The text-recognition software built in to the app means you are able to scan a business card and have Google pick up on the words that are printed on it. Save this on your phone to easily input people's details

Barcodes
If you see a QR code, use Google Goggles to scan it and be taken to the URL it points to. The site will open in your phone's web browser. This saves a lot of time having to tap in the websites's URL

Logos
You can point your phone at a logo you are not sure about and have it scour Google for the image, showing you the correct matches for it. Simply take a photo of the logo and then allow it to use that to find the image

Search images | Use Google Goggles



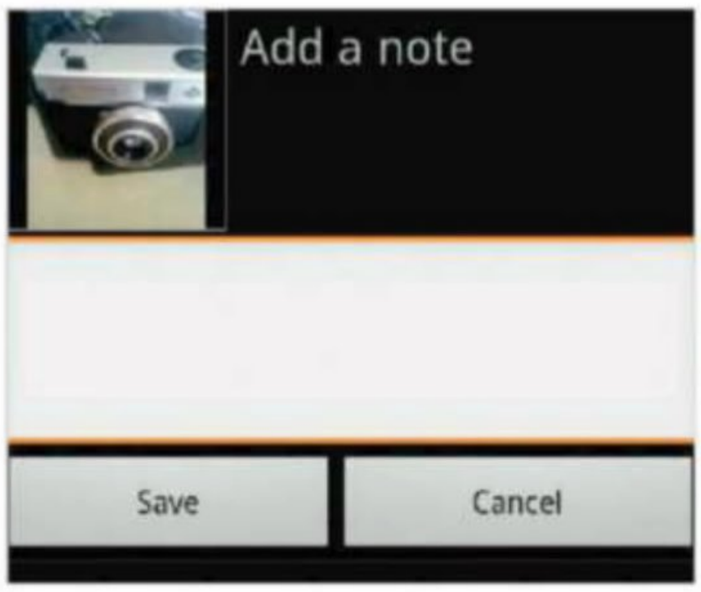
1: Start your search
Google Goggles allows you to search by using an image rather than text for the query. You can use your camera to take an instant photo, or film an item. You can also load an image or view any previous searches. We're going to take a photo, so tap Snapshot.

2: Take a photo
Line up the object you wish to photograph on your phone and when you have it in place, press the Camera button and a snapshot will be taken. The app will then scan the photo and use the information to search for the item on Google.

3: See the results
Now a list of the results will appear. If your actual object is not recognised, then Google Goggles will present a host of similar images. If you feel you can suggest a better result, simply tap the button at the bottom of the screen and make your suggestion.

4: Enable search history

When you suggest a better result, you need to enable the search history that lets you revisit images you have taken, add notes and share results. Tap OK and allow access.

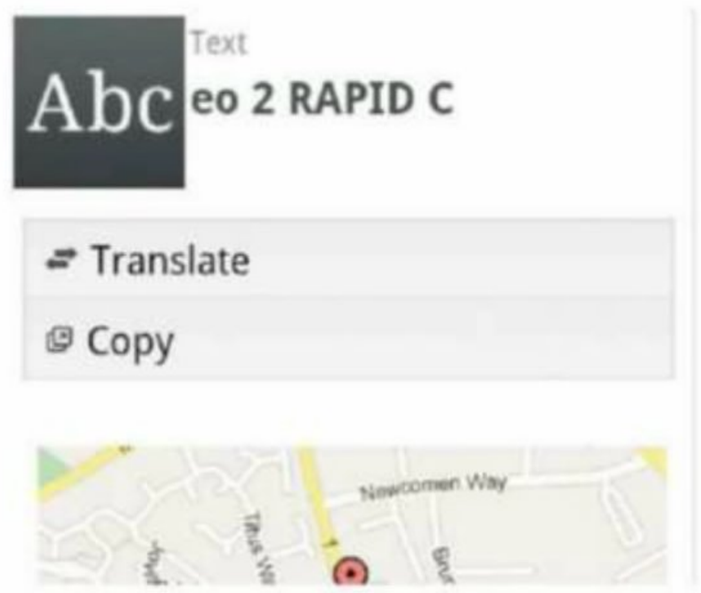


5: Add a note

To add a note with your image, simply tap the pencil icon in the top-right corner when you view your picture. This will bring up a keyboard. Type your note and tap Save.

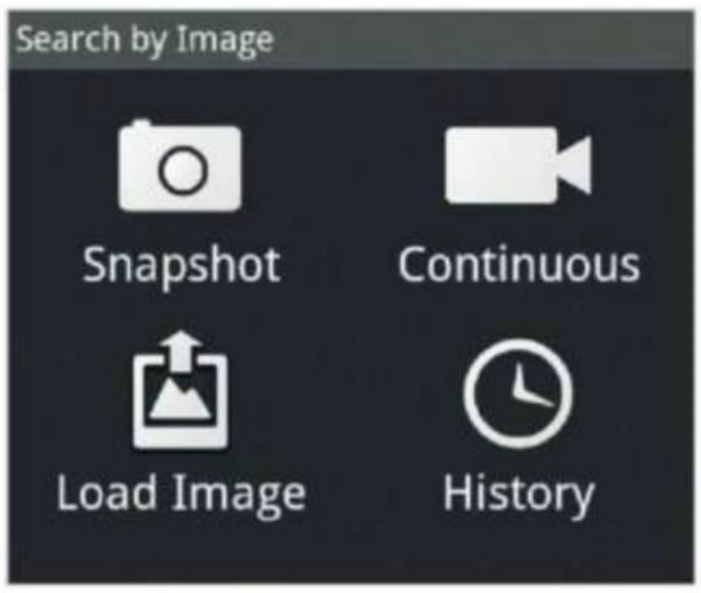
6: Pick up on text

If there is any text within your photo, Google Goggles cleverly detects it and the words will appear at the bottom of the screen. A green box is drawn around the words on the image.



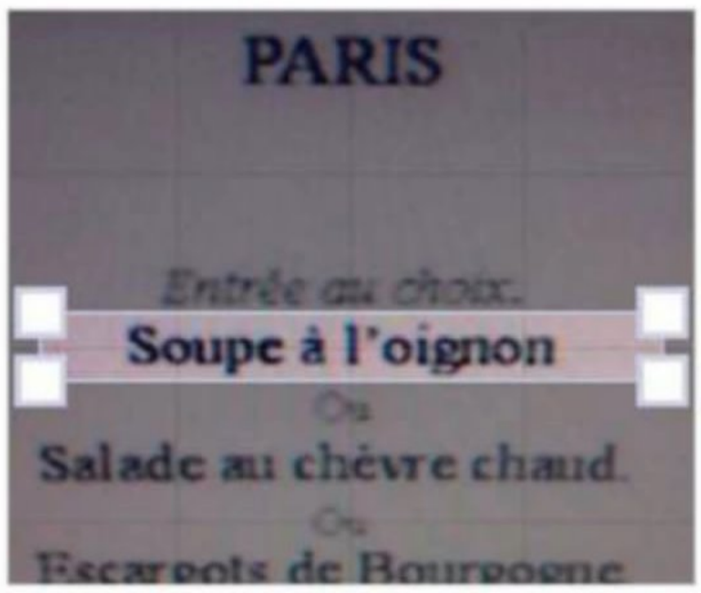
7: Search using the text

You can use this text to search Google. It will bring up any incidences using that word, be it a company of the product which you have taken a picture of or extra information.



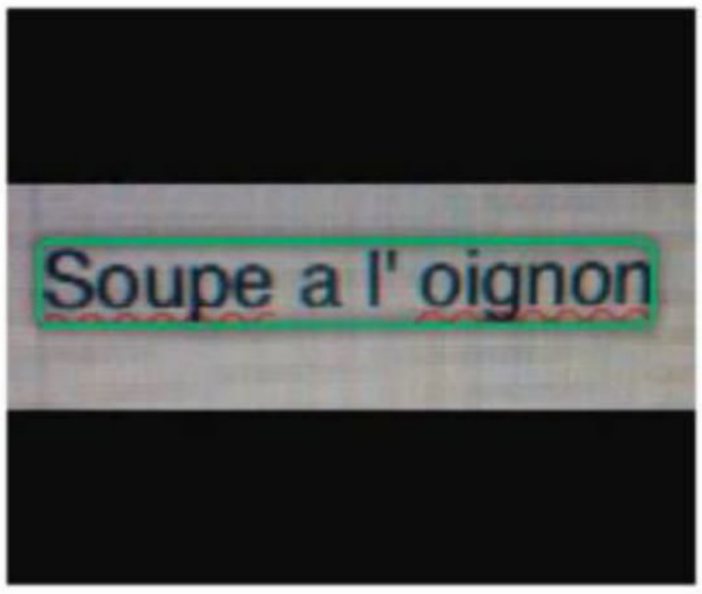
8: Translate printed text

Open up the Google Goggles app and select the Snapshot option. You will be taken to the camera on your phone. Point your phone at the word or phrase you want translated.



9: Region of interest

In the bottom-right-hand corner is a region of interest button. This will allow you to draw a box around a specific word. Highlight a word or phrase and press the Shutter button.

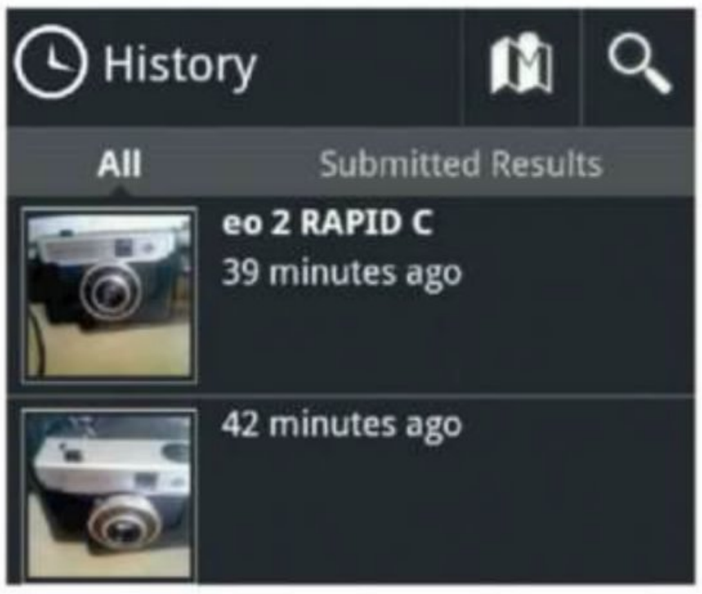


10: Translate the words

The app photographs the text that you have pointed your phone at. It will begin scanning the text before looking for a match. Here, soupe à l'oignon has been translated.

11: Perform a web search

When you tap on the translated result, not only can you see the translation on a full page but Google Goggles will perform a web search for entries relating to that word.



12: See your history

You can go back to your images at any point by selecting the History option. This will let you see all your saved pictures so you can keep a record of what you have taken.

App used: Google Drive **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

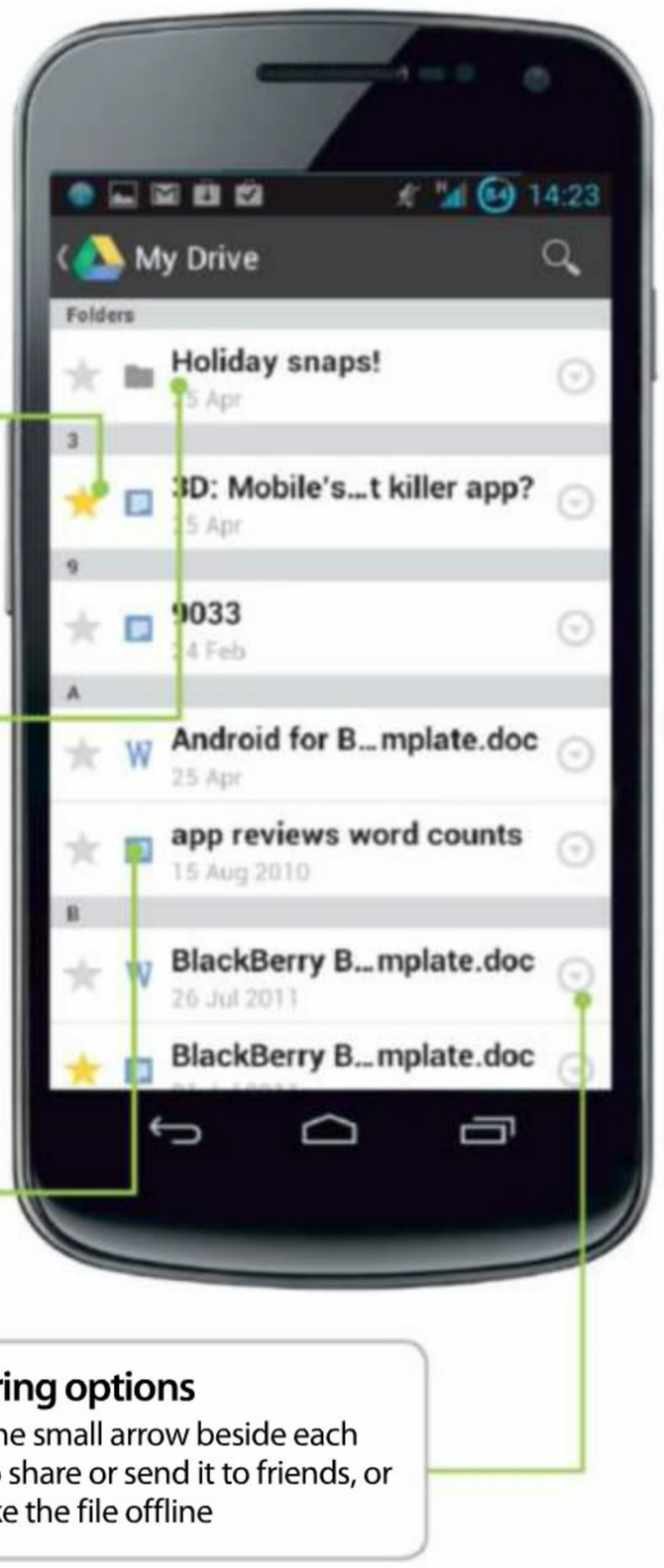
Access the cloud with Google Drive

Upload and even create files with Google's storage system

Cloud-based storage allows users to upload their documents, videos and images and access them over a number of devices. For example, if you upload an image in Dropbox on your Android device, you can log in to the same account on your tablet and then download the same image.

There are plenty of cloud-based servers available for Android users, all trying to entice people to their system by offering tasty free storage. Dropbox, SugarSync and Box all offer storage facilities, and all come with a sizable chunk of free storage to boot. Google's new service – Drive – offers the same functionalities as these other apps, but also has a bit more focus on syncing with other Google apps. New users can download the app from the Google Play store and receive an instant 5GB of space.

In this tutorial we'll show you the basics of navigating Google Drive, as well as show you how to upload files and, ultimately, free up some bytes on your device.



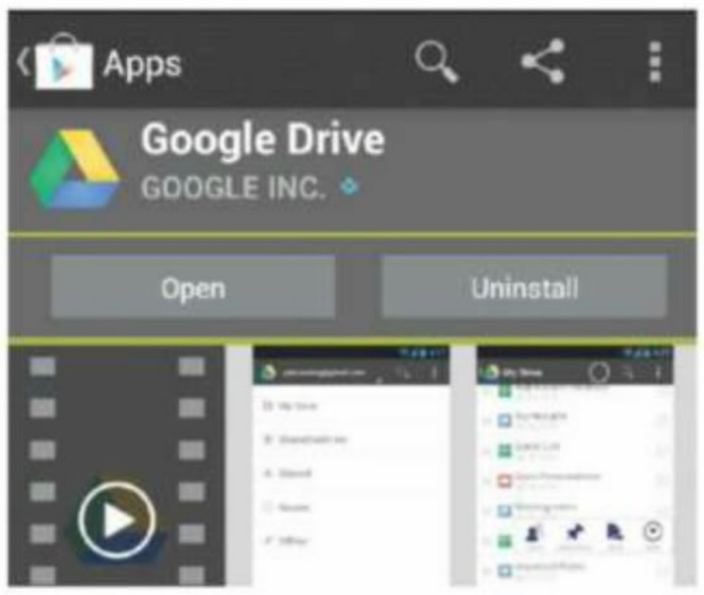
Favourites
As with emails in your Gmail account, you can add stars to files and folders to highlight them

Photos
Photographs can be uploaded by themselves, or as part of a larger group or album for convenience

Documents
The integration with Google Docs means that creating and uploading documents is a breeze

Sharing options
Tap the small arrow beside each file to share or send it to friends, or to take the file offline

Google Drive | Store your files in the cloud

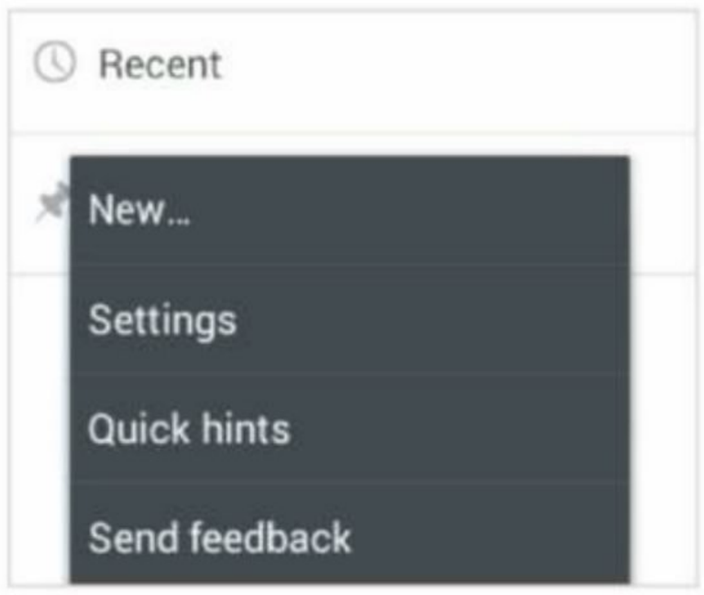


1: Download Google Drive

To kick off, open up the Google Play store and use the search bar to quickly find Google Drive. Download, install and load up the free app, then follow the on-screen instructions until you reach Drive's home screen. Take a few minutes to familiarise yourself with it.

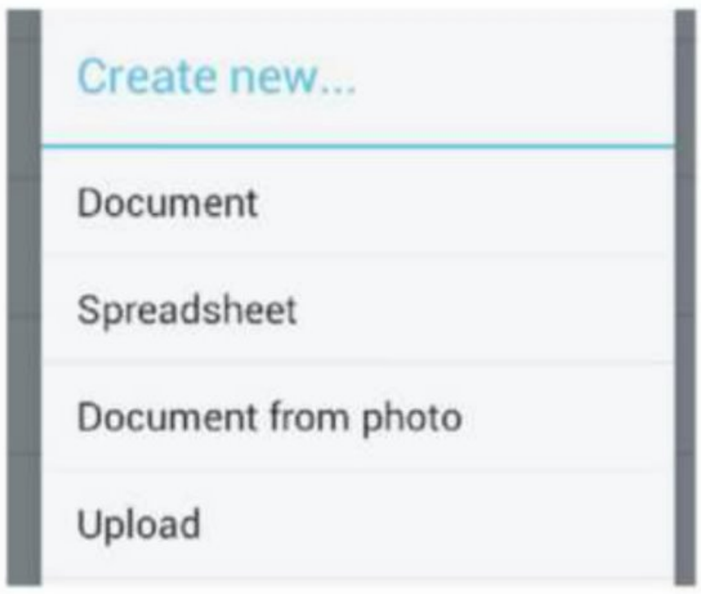
2: Explore the home screen

There are several options available to you on the home screen. The My Drive option lets you see everything you've uploaded. Shared with me shows you files that others have given you access to and Starred gives you quick access to your favourite files.



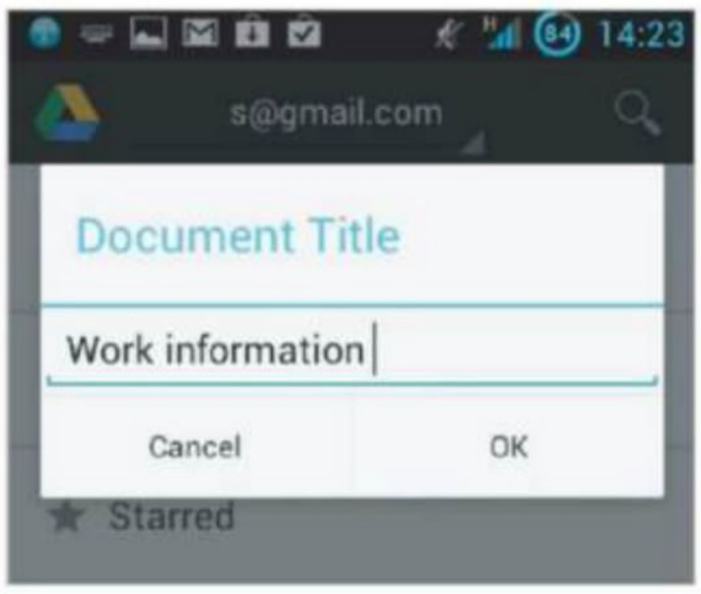
3: Sync with Google Docs

What makes Drive unique, when compared to other cloud servers, is its tight integration with Google Docs. Through Drive you can create new documents and upload them instantaneously. To do this, open the options menu via button or icon and select New.



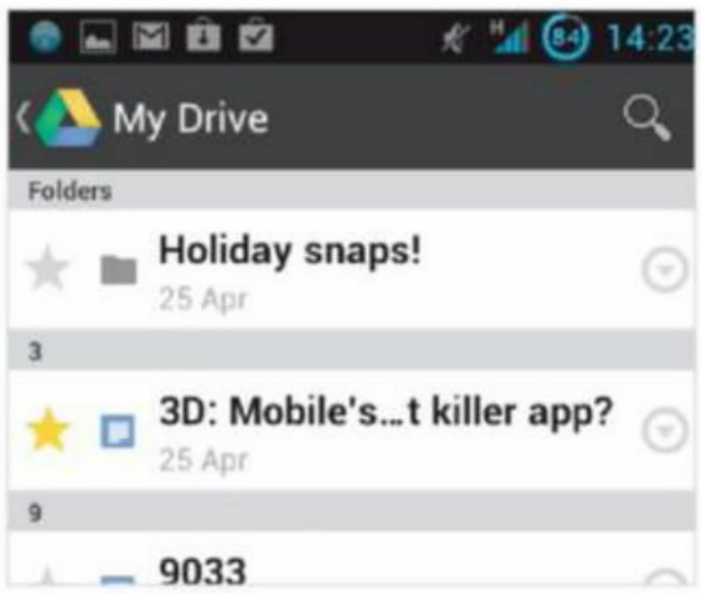
4: Create a new document

The Create new menu will appear and enable you to access Google Docs and prepare items to upload. For this tutorial, select Document.



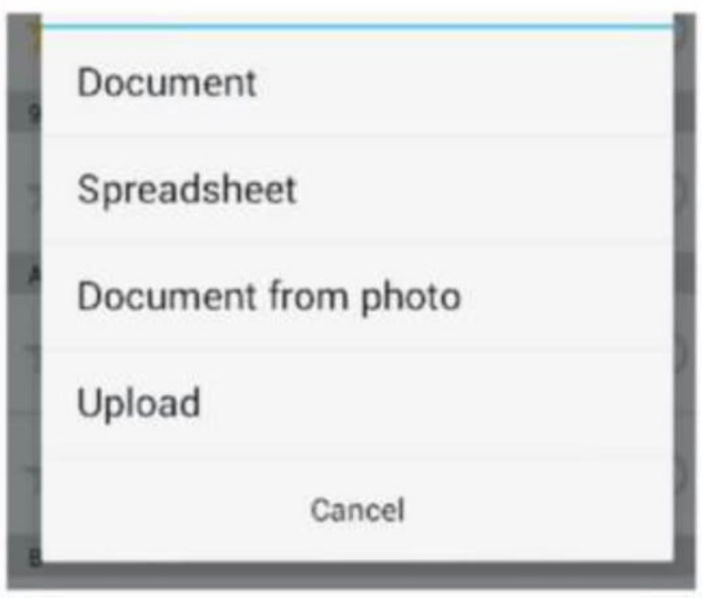
5: Type and save

Type and format the document as normal. When finished, tap the tick in the top-left corner to save the document to Google Drive.



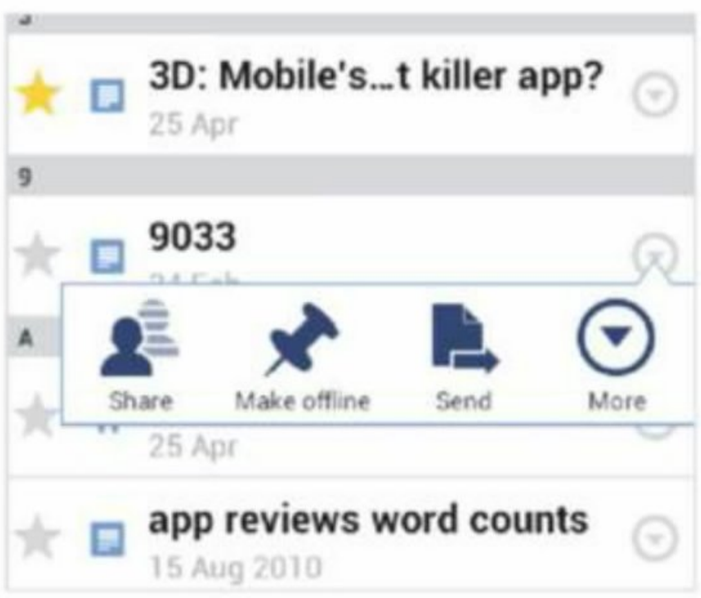
6: Upload a document

Go to the Google Drive home screen and select Documents. Documents you've saved, including your new one, will be listed here.



7: Upload a photo

Press the options button on the home screen and select New from the pop-up menu. Tap Upload and then Image. Pick a picture to upload, enter a few basic details, then hit OK.

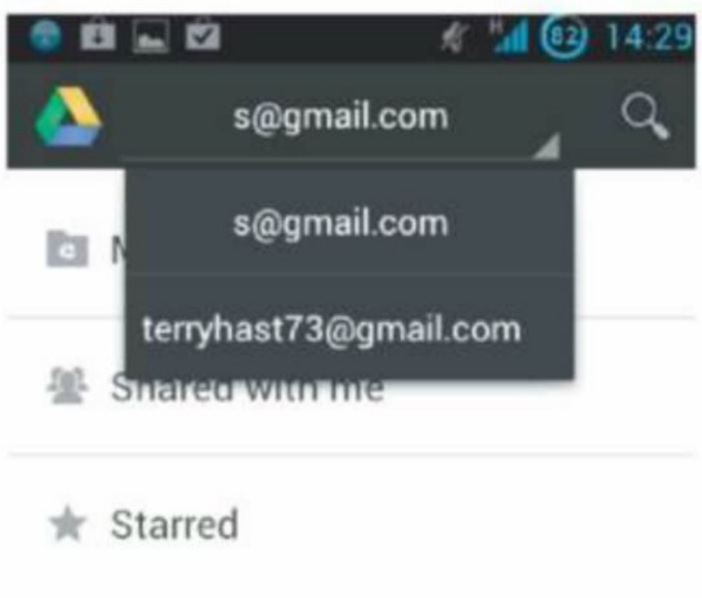


8: Manage your uploads

Each section of the home screen is home to various parts of cloud space. Files can be edited and changed via the cloud, and you can make some available for offline viewing.

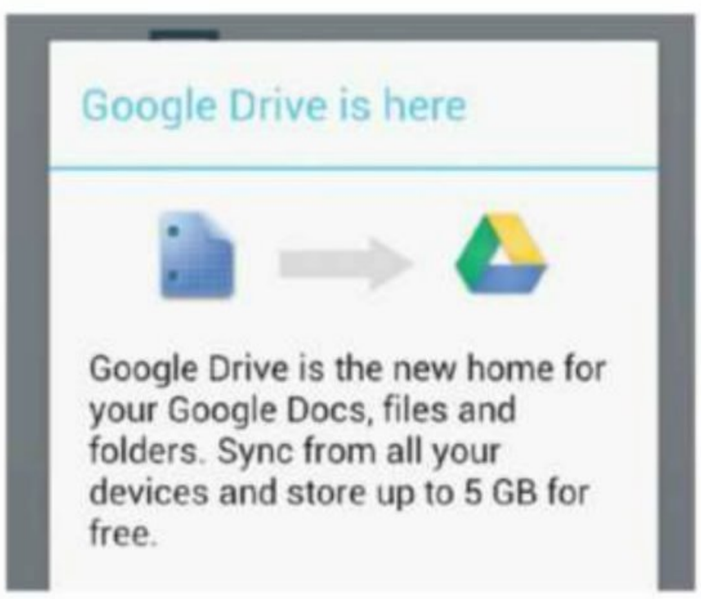
9: Use a different account

To use another account, make sure you're still signed in to Google Drive then, from the home screen, make any files you want to add to your secondary account available offline.



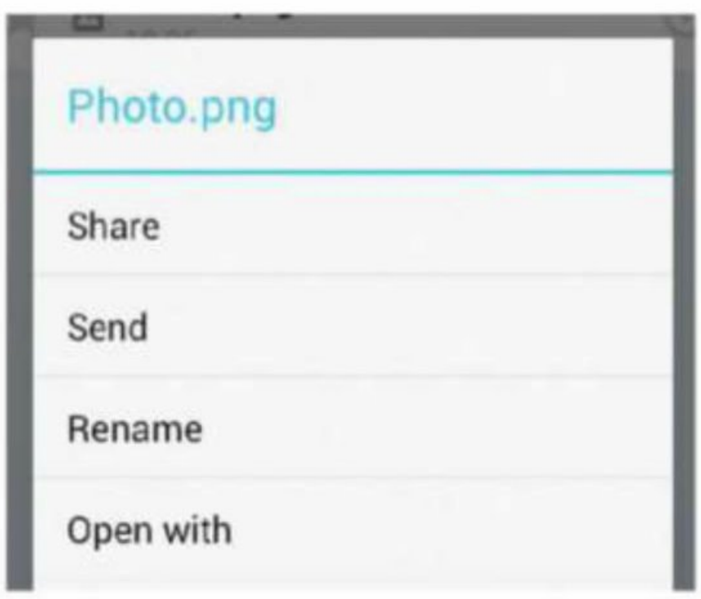
10: Make the switch

On the home screen, tap the bar showing your current Gmail address to see a drop-down menu with all your Gmail accounts listed. Simply tap an account to switch to it.



11: Follow the tutorial

If you haven't switched accounts before then the Google Drive tutorial will once again load up, giving you handy step-by-step instructions that you can either read or skip.



12: Start uploading files

Files can be uploaded and accessed in the same way. You can switch between your various Gmail accounts as often as you like, and have a different selection of files to boot.

New for Jelly Bean

App used: Android Beam **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Share files easily with Android Beam

Take advantage of Google's wireless sharing feature on your device

There is a plethora of choice when it comes to sharing files from your Android phone. Many of the traditional ways of sharing your files are still present on most devices, such as MMS for example, and are still used fairly regularly. Bluetooth still remains one of the best ways to distribute files between devices, and there are also a selection of apps that can be used to send media files.

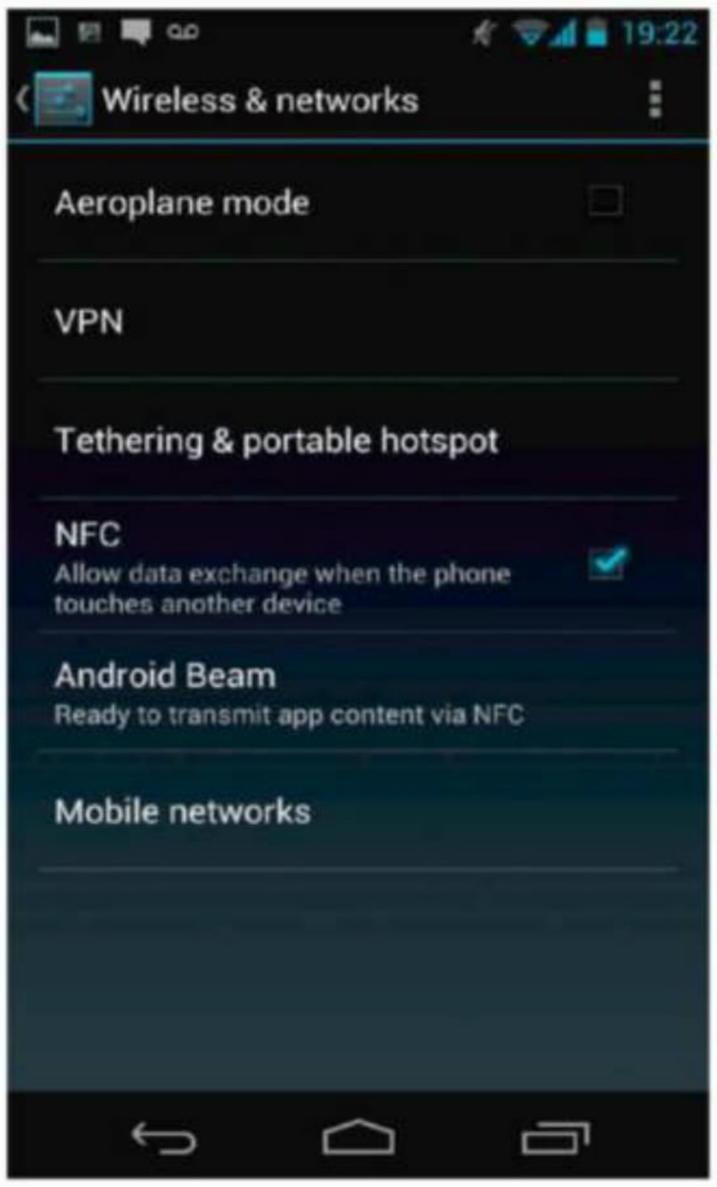
A new method of sharing files that came into the spotlight when the Ice Cream Sandwich update was first released is Android Beam. This great feature allows for two Beam-enabled devices to be placed back-to-back and instantly transfer media files, big or small. Beam is a pretty simple feature to set up and use, and when used correctly, it is by far the quickest way to share files between devices.

The following tutorial will guide you through the basics of Android Beam, as well as give you a guide on how to set it up and start using it in a way that's useful for you.

Android Beam | Send media to another device

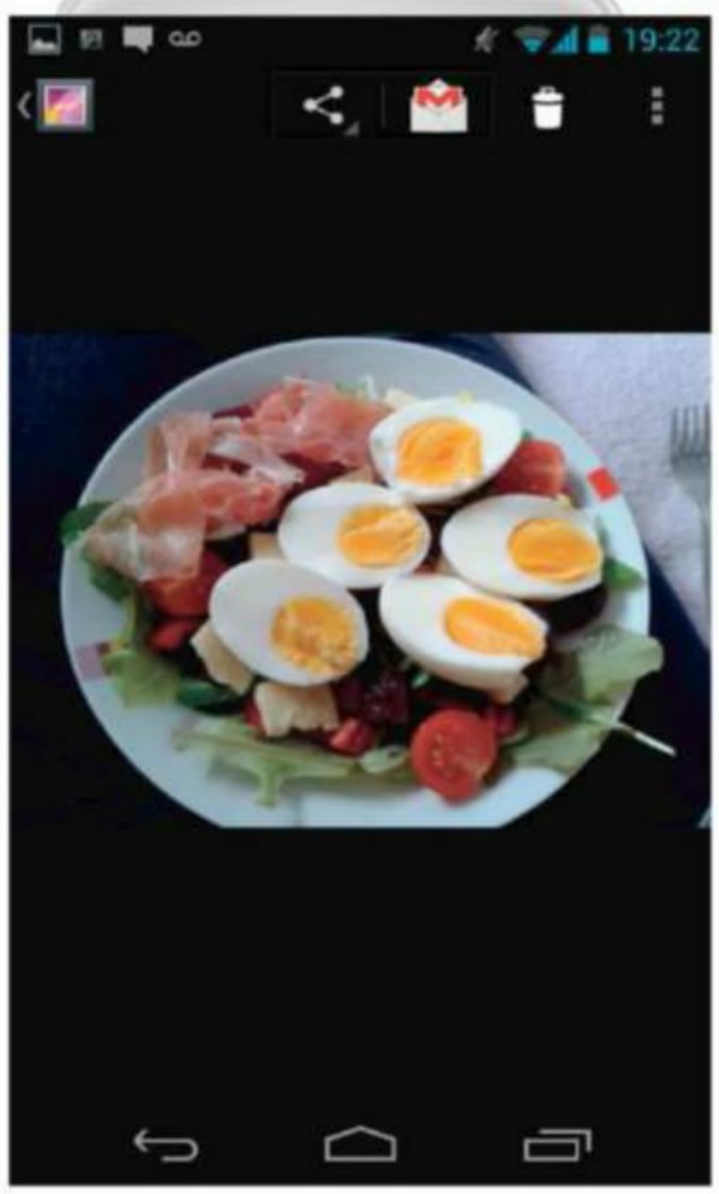
1: Open up Settings

From the home screen, open up the app drawer. From here scroll through all your apps until you reach the Settings menu and open it up. Then open the Wireless & Networks tab.



2: Wireless & Networks menu

You'll first need to activate two different features. Find the tab named NFC and make sure the box is ticked, before opening up the Android Beam tab and turning the switch on.

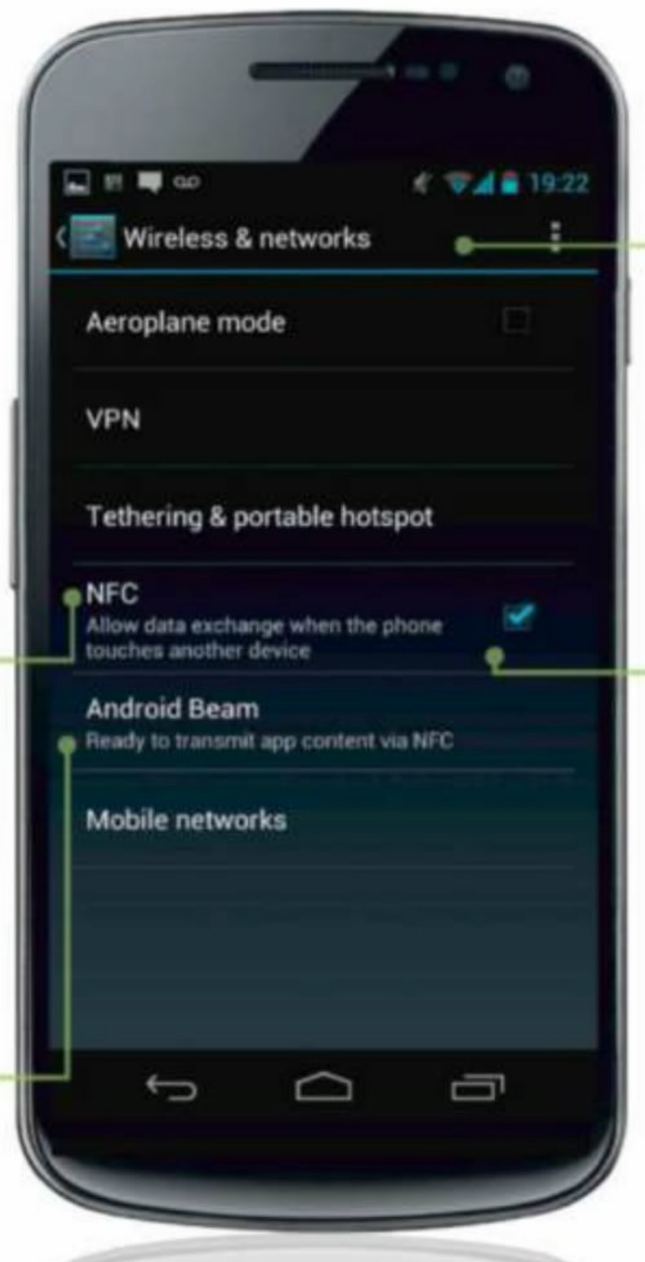


3: Find a file

The best thing about Android Beam is that nearly any sort of file can be transferred over. Select the file you want to transfer and keep it loaded on your screen.

Beam your files using NFC

Android's innovative file transfer service is wonderfully direct



Enable NFC

Before you can get stuck into transferring your files over, you first need to make sure that you have the NFC (near-field communication) capibility enabled. If you're having problems with enabling the connection, simply restart your device and try turning it on again

Open up Beam

Press on the Android Beam tab to be taken within the feature. You'll be able to read a short guide on how to use Beam, what kind of files can be transferred across between devices, as well as a switch to turn the Beam off and on

Benefit of Bluetooth

NFC technology is strongly linked with Bluetooth technology, so by enabling your Bluetooth connection under the Wireless & Network tab in the Settings menu, you might be able improve your NFC connection a little bit

After transferring

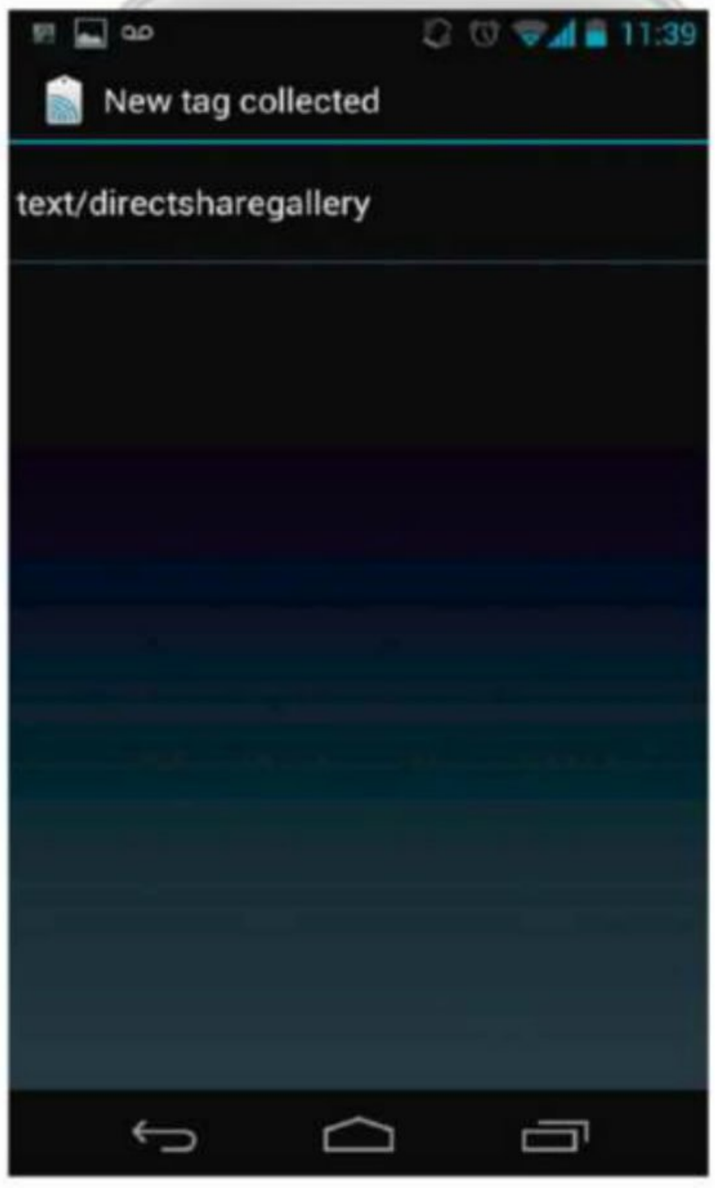
As with any wireless signal, and especially one that involves you transferring files between devices, you'll want to make sure you disable it after transferring, as you might notice your battery draining a little faster than usual

Beam upgraded

Android Beam was brilliant when first unveiled with the ICS update, and it has only gotten better with Jelly Bean. Now, you can instantly pair your Android device with supported Bluetooth speakers and headsets by simply touching them together

4: Touch to beam

After placing the two phones back to back, you'll find that a zoomed-in version of the file on your screen appears. When you press on the file, it'll almost instantly transfer over.



5: New device detected

After the second device receives the file, it will show you've connected to a new device. The 'New tag collected' screen means transferring to that device could be quicker next time.

6: Troubleshooting Android Beam

You may find that some devices have a problem with receiving some files. This is usually down to limited storage on the receiving device, so make sure you have room.

App used: Google Chrome **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Browse faster with Google Chrome

It's fast, it's slick and it's built into the latest Android tablet OS

Imagine you are at a conference, opening up webpages within Google Chrome. Imagine if other people are in the audience with Android phones linked in to Chrome. If you give them the username and password of the Google connection you are using, they will be able to hook in and see what you are seeing on their own device. And that's just one of the uses of the handy features built in.

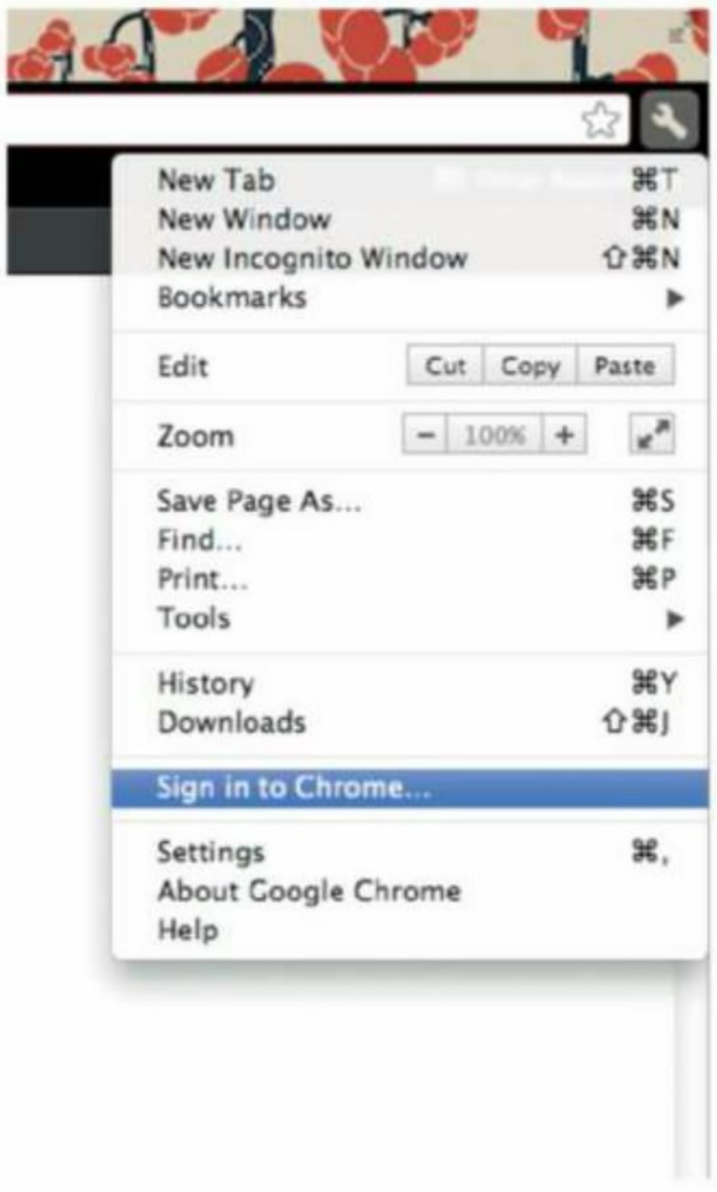
As the default browser on the latest Android operating system, your device has become more versatile than ever before with a few neat tricks that you can employ to make your browsing even more of a pleasure. You can sync with your desktop browser and swipe between tabs. You can also choose to hide your browsing so other users of your device don't get nosy.

And if you have this running on an Android tablet such as the Google Nexus 7, then you will find it makes a massive difference. There is a reason Google builds Chrome into these tablets and the ease of use and features is the evidence of that.

Google Chrome | Better browsing with Chrome

1: Sharing your tabs

Open Google Chrome, tap on the menu button. On the menu, select Other devices. This will allow you to access the open tabs that are on your computer, on your Android device.



2: Go to your computer

Open up your Chrome browser on your PC or Mac and select the Settings menu by clicking the spanner icon in the right hand corner. Scroll down to sign in to Chrome.

3: See the open tabs

On your Android device, you will see your computer and the open tabs. Above, we have the Google search engine open as well as Google on our device and both are shown.

Discover Chrome's unique functions

Google have made huge advances on standard browsers

Tabs

Google Chrome, like many web browsers, and certainly like those you will find on a computer, has visible tabs which you can click on and scroll through. You can open a new tab by selecting the small tab section next to an already open tab

Synced tabs

You can see just which computer you have synced with and the tabs which are displayed on that machine. Simply tap on the tab that you wish to open and you will be able to view it. It's a very neat trick

Menu

By selecting the menu button, you can choose to sync your Android device with another device such as your computer. You need to be logged in to both devices in order for it to work but what you do on your computer will duplicate on Android

Going incognito

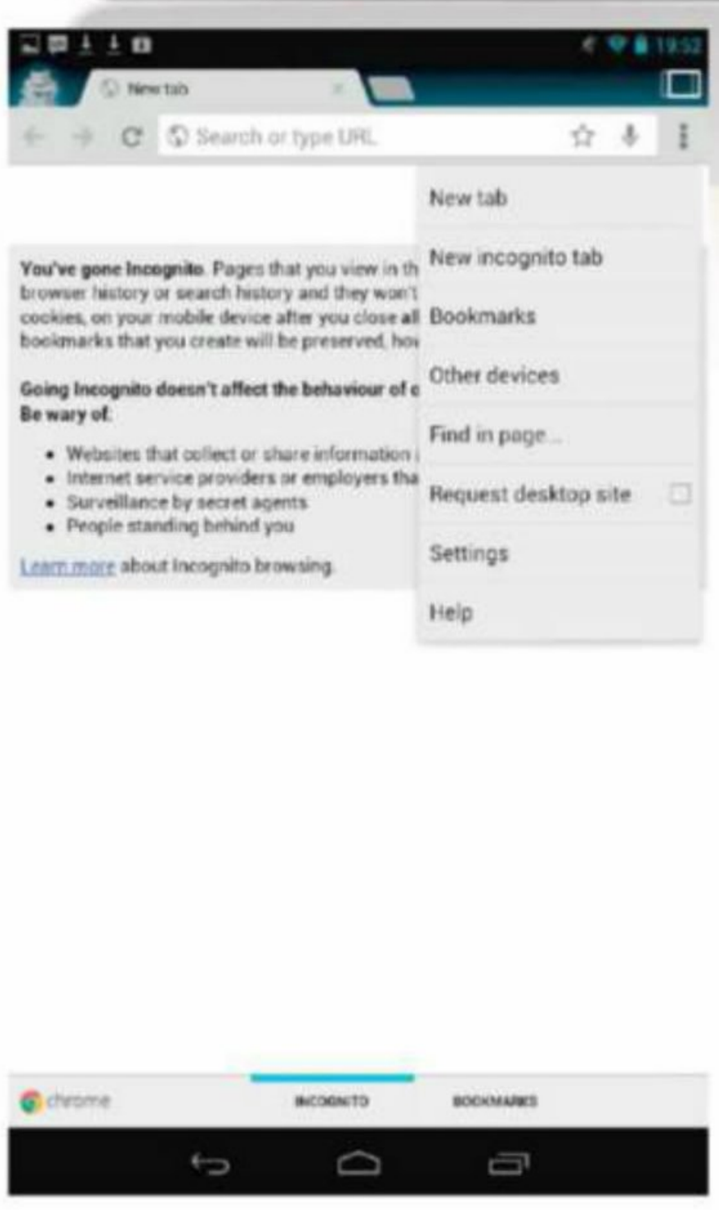
As well as being able to swipe between the different tabs and request a desktop rather than mobile site and bookmark pages, you can choose to surf without detection by going incognito. This doesn't save your browsing or search history

Sign in to Chrome

If you log in to Chrome using your Google account details, then you'll notice that a few handy features appear. Sites that you've visited on your desktop, for example, will be auto-completed as you begin typing them in with your Android keyboard

4: Swiping your tabs

All you have to do when you have numerous tabs open is swipe left and right to move from one tab to another. It's a fresh approach to tab management which works very well.



5: Browse incognito with Chrome

Tap the Chrome menu button on your Android device, then the New incognito tab option. This will allow you to view pages without them leaving cookies.

6: The tab switcher

In the right hand corner is the tab switcher. Touch this icon to switch back and forth between incognito mode and regular tabs. You can swipe up and down between tabs.

App used: Flipboard Price: Free Time needed: 15 minutes Difficulty: Beginner

Get all your news via social mag Flipboard

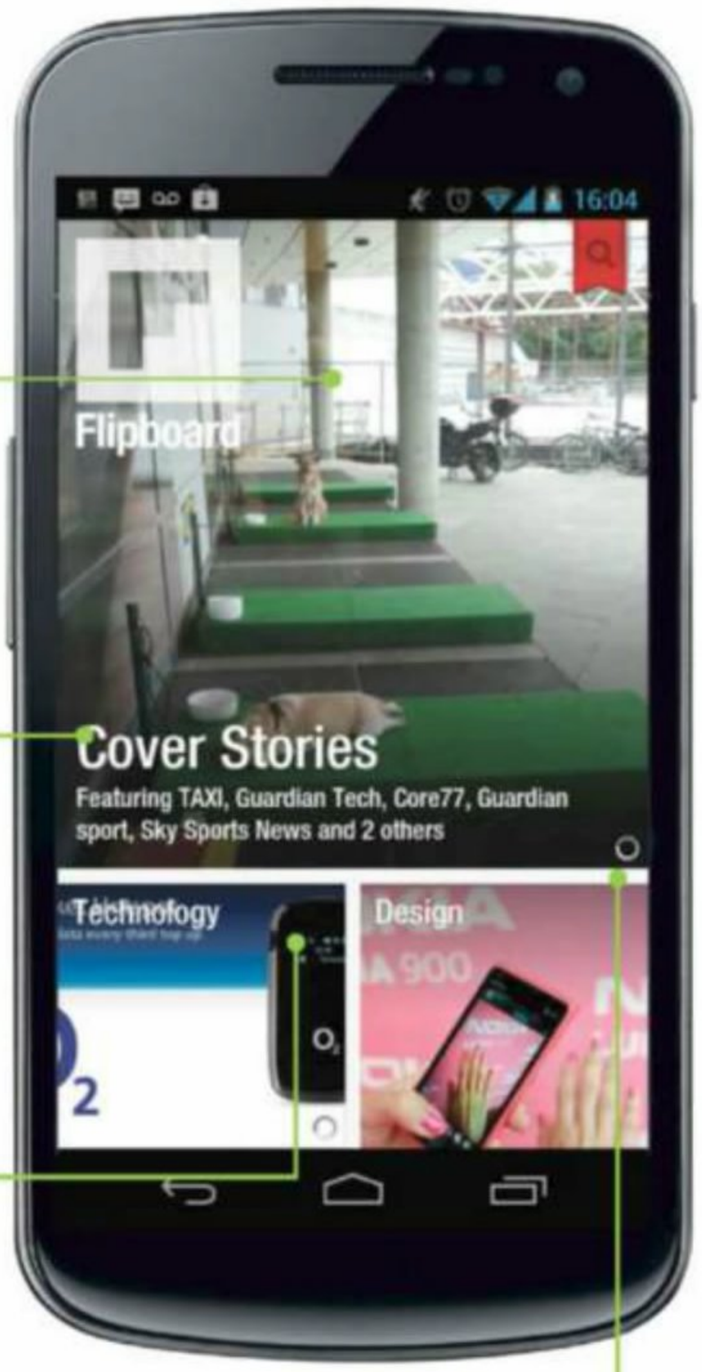
Stories you care about in the palm of your hand

The highly anticipated Flipboard has finally made its way onto Android devices. Although at first it was an exclusive app for Samsung Galaxy S III owners, it was eventually released on to several other Android devices. After phenomenal success on iOS, Flipboard provides its users with a unique approach to gathering news.

Instead of trudging through a selection of monotonous screens, Flipboard uses a clever system to let you select your favourite topics. The variety is good, and whether you're into politics or the latest video games, there's plenty of choice.

Once you've gathered your list, Flipboard populates the latest headlines in your chosen categories in two beautifully designed tabbed screens. Each category shows you the ten biggest headlines within it, and will also notify you of any updates.

In this tutorial we'll show you how to set up a Flipboard account, and how to put together your own news feed.



Stay social

You can link your social media accounts like Facebook and Twitter to your Flipboard mag, giving you direct access to your friends' news feeds and timelines from the same tabbed pages as your news

Select reading

The biggest draw for Flipboard is, of course, the ability to select just the kinds of articles that appeal to you and then have them delivered to your phone, neatly designed as a digital mag, for a personalised experience

Discover new content

Once you've created a Flipboard account, you'll see an Inside Flipboard tile next to the others. You can tap this to go on the guided tour and get to know the app, before filling in empty tiles with new categories

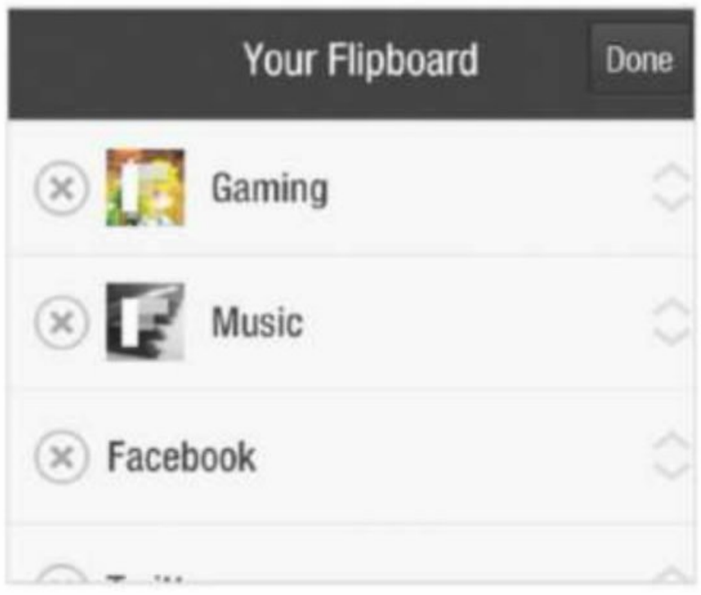
Find your favourites

You can tap on the magnifying glass icon at any time to call up Flipboard's search function. From there, you can look for people and accounts, more news feeds to add, and search through your own Flipboard content

Manage news | Build your own feed

1: Create an account

When you open up the Flipboard app for the first time you'll be prompted to create an account. This account will be your way of syncing the Flipboard news feed and many other apps, including Facebook and Twitter. The syncing process will be covered later on.

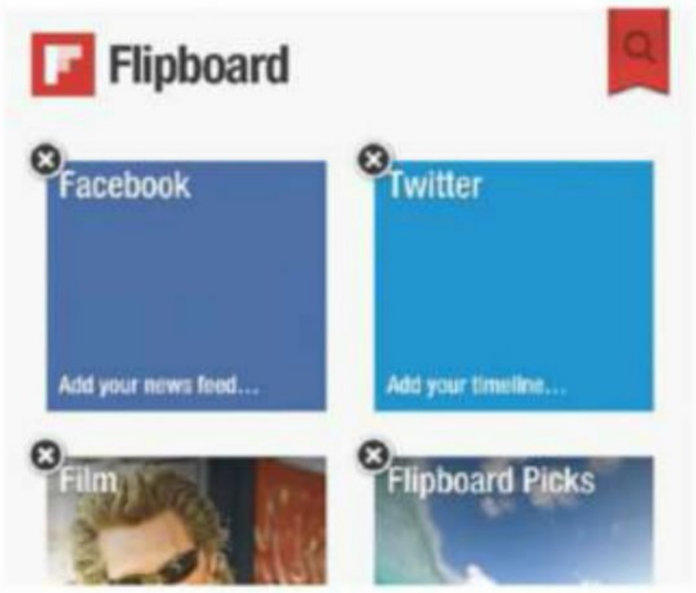


2: Choose your categories

The next screen will provide you with the list of categories that your news feed can be compiled from. Select any categories you want to add to your feed, and then select Done once you're finished. You can change what categories are shown at any time.

3: Home screen

The Flipboard home screen is designed to offer users instant access to all their chosen categories. Each panel represents a different section of news, and apps that you're synced with are listed at the top of the app. Any time you sync with a new app, it'll be shown here.



4: Edit your home screen

To alter the layout of your home screen, long press on a desired tile. All the tiles will then pop out and you'll be able to drag the section to a new location. Tap a cross to delete a tile.

5: Open a panel

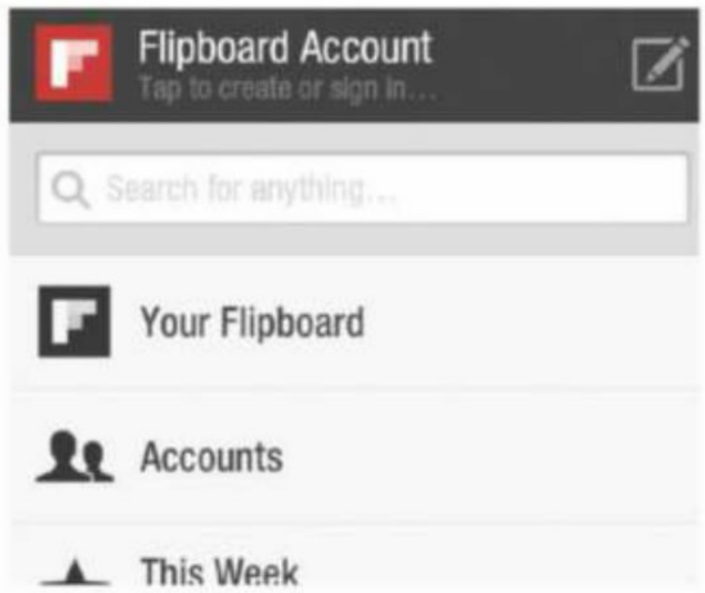
Select a panel to open it and scroll through the latest headlines from that category. Each headline will include details such as the author's name and the source website.

6: Read the news

Tap a story's headline to open it up and begin reading. In some cases, the story will load up within Flipboard's own reader, but in others the story will load up in your web browser.

7: Stories of the week

The This Week option will give you the biggest stories of the week on Flipboard. These stories look and read the same as the other stories in your news feed.

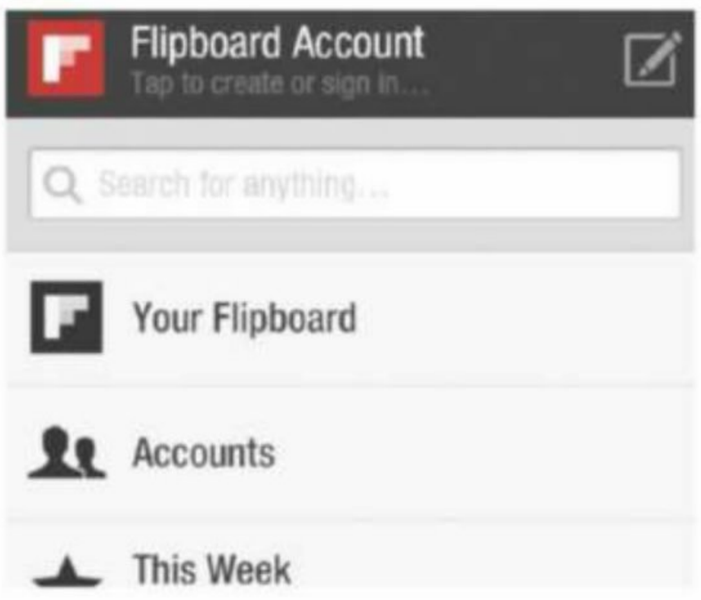


8: Enter the settings

Press your device's Options button while on Flipboard's home screen to find the Settings menu. Here you'll have access to your entire Flipboard account, as well as synced apps.

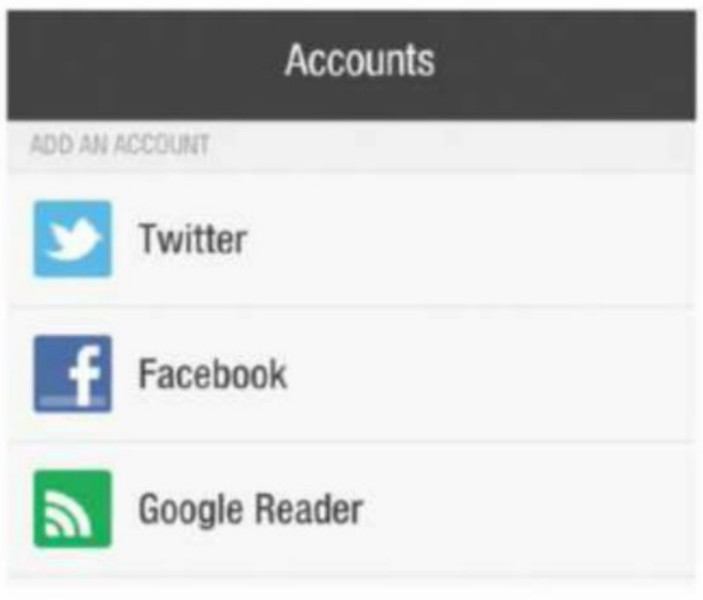
9: Pinpoint your news

Scroll down the Settings page until you see a list of different categories. If you want to further pinpoint your news feed, you can choose individual elements of that category.



10: Find the Accounts tab

Still in Settings, scroll down to the Accounts tab. Open this menu to see a whole host of different apps you can sync with, and to edit any of your Flipboard account details.



11: View available apps

The list of available apps for you to sync with is pretty vast. There's a heavy influence on social media here, and with recognisable options like Facebook, Instagram and Twitter.

12: Sync with Flipboard

Tap any of the apps listed to begin syncing. In the case of Twitter and Facebook, you'll need to give Flipboard permission to access account, and confirm the app permissions.

App used: Google Listen **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

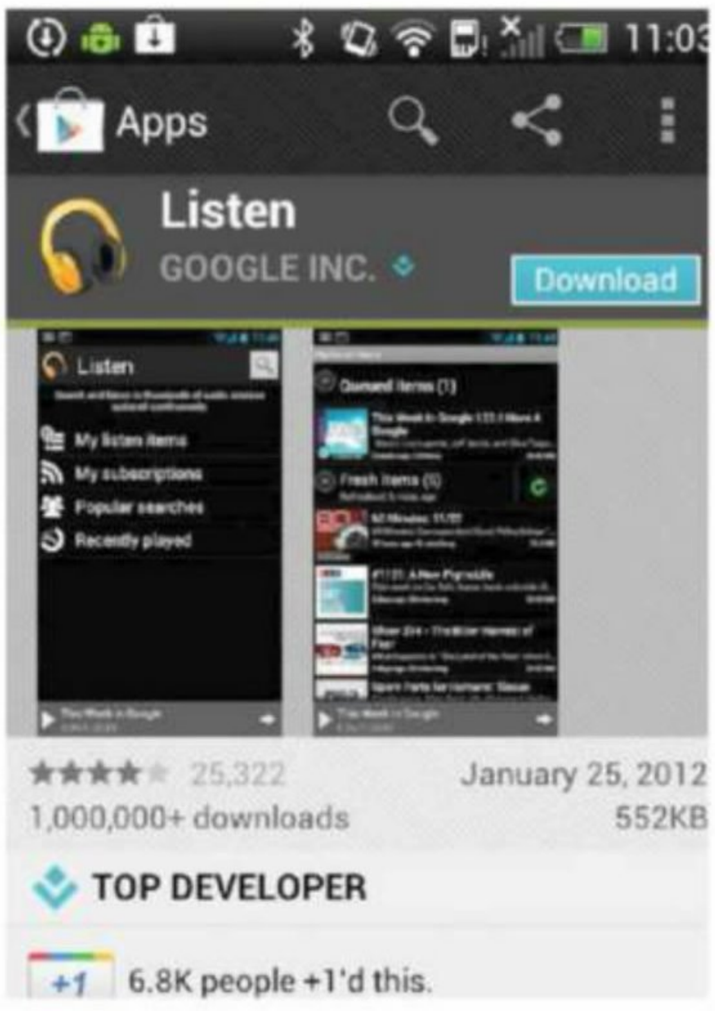
Find, download and listen to podcasts

Discover how to manage podcasts and audio sources with Google Listen

Google Listen is a free app that helps keep podcasts and audio sources well-organised and ready for listening. Users can find thousands of podcasts via the search facility and take a closer look at what's on offer before deciding on the next step. Listen boasts a host of features which are applied to individual podcasts. Users can start streaming with a tap of the 'Listen now' button. The alternative is to queue for listening/downloading at a later date, while selecting 'More episodes' will give users more podcasts to choose from.

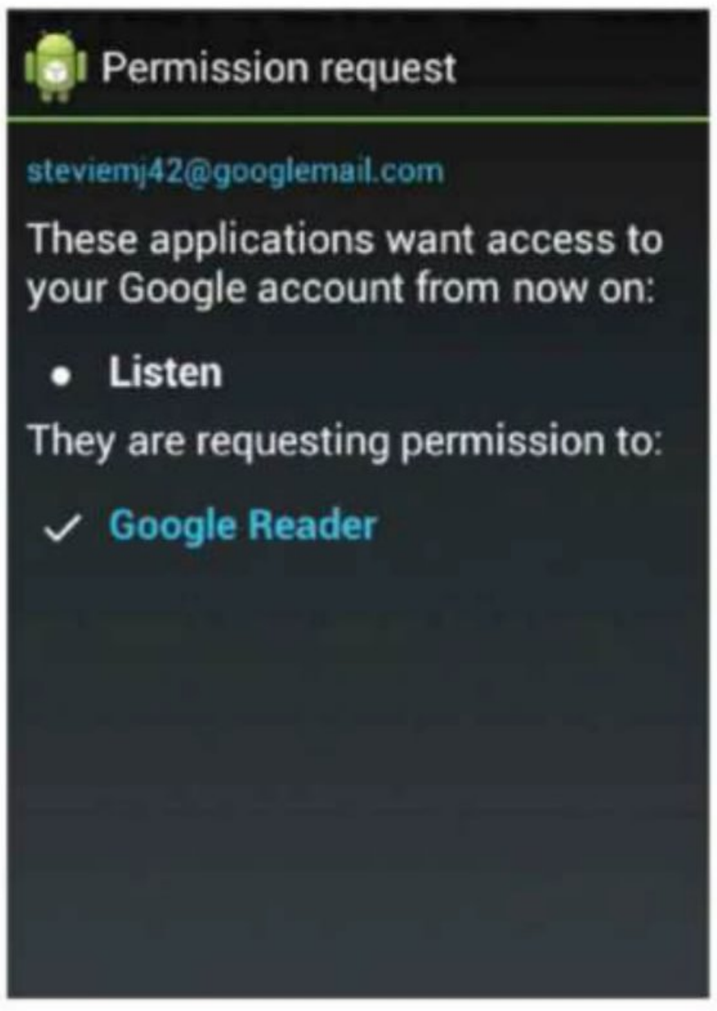
Streaming is one option for listening, but podcasts can also be downloaded and stored. By default, Android allows for 20 episodes to be stored on a device. This can be changed to save space, eg only allow ten episodes, or you could choose to store up to a maximum of 80 episodes. The default download setting is 'Only on Wi-Fi', ensuring that data plans are kept intact while enjoying the delights of a favourite podcast.

Listen to podcasts | Manage new audio downloads



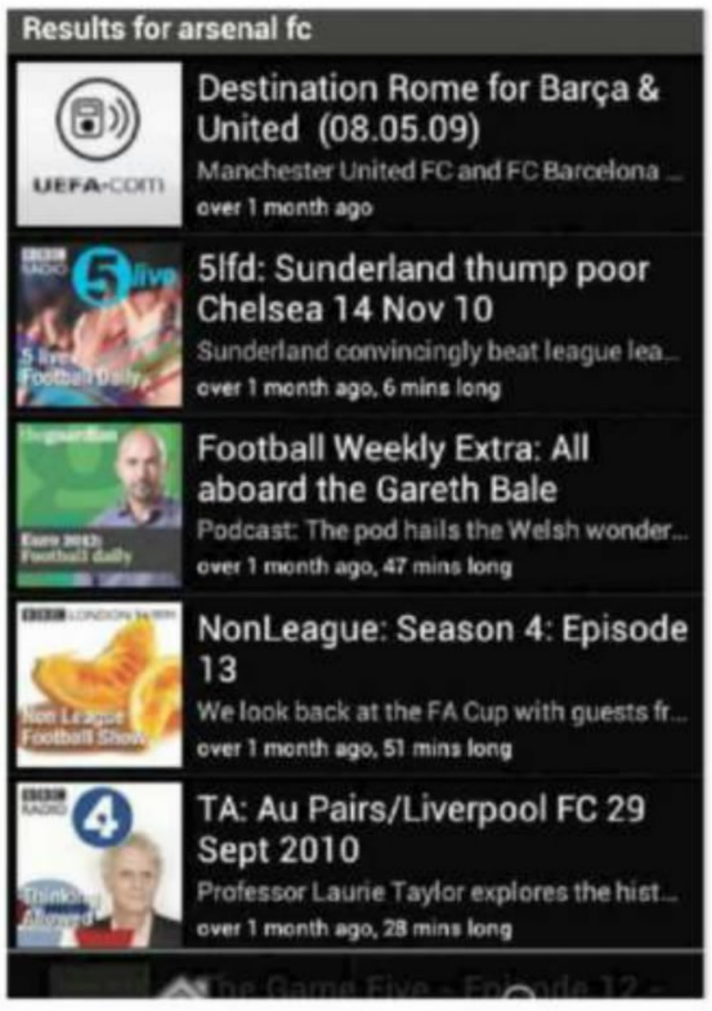
1: Get Google Listen

To get started head to the Play Store and search for Google Listen. Download and install the free app. Once downloaded the new app will appear in Apps, so locate and tap on it.



2: Allow access

A Google account will need to be assigned to Listen; the current account is selected by default. Select the default or an alternative one to continue, then tap 'Allow access'.

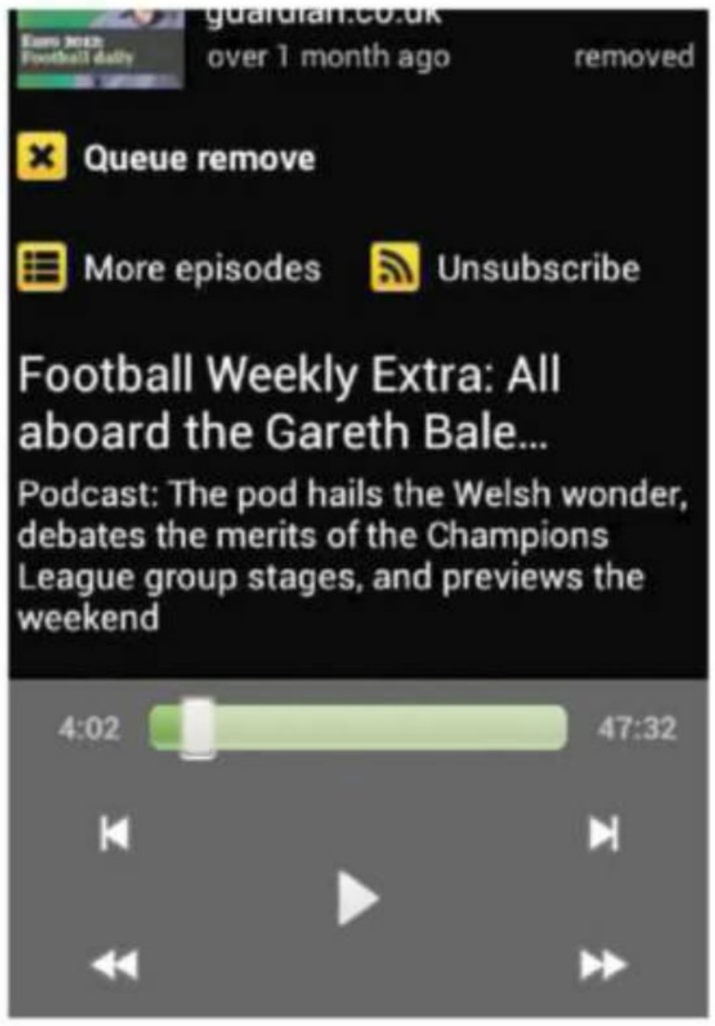


3: Search for a podcast

Tap the search icon at the top of the screen, enter a search term and wait for the results to be listed. To start another search simply long-press on 'Recent apps' then select 'Search'.

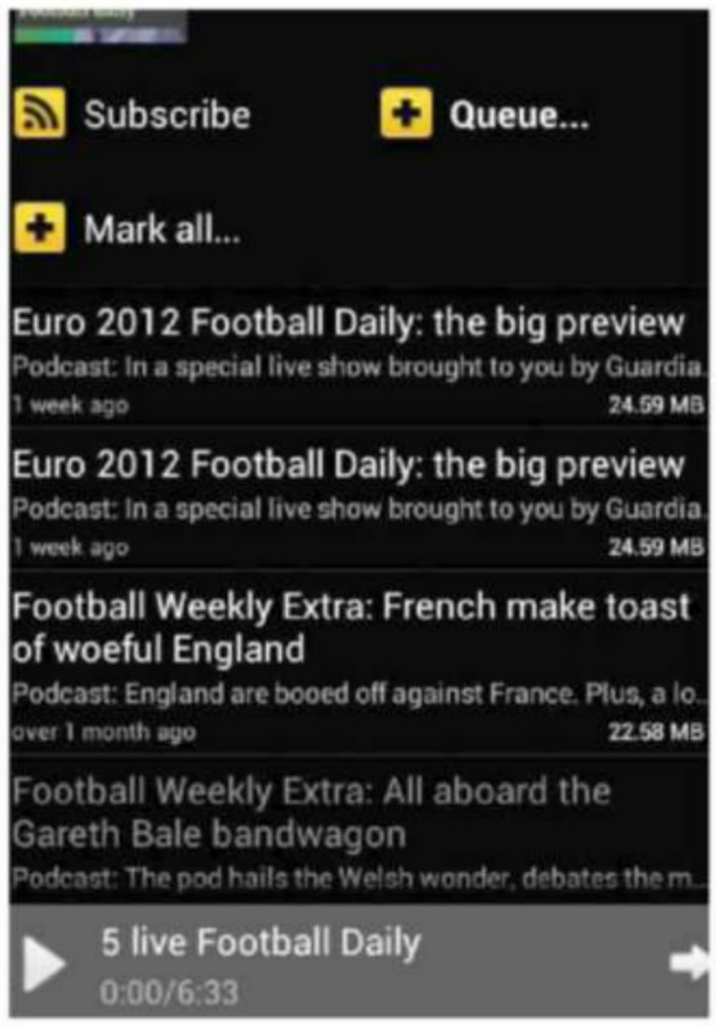
4: Listen now

Select a podcast from the list of results to get a summary of it, including name, url, description, file size, upload date and options. Select 'Listen now' to start streaming.



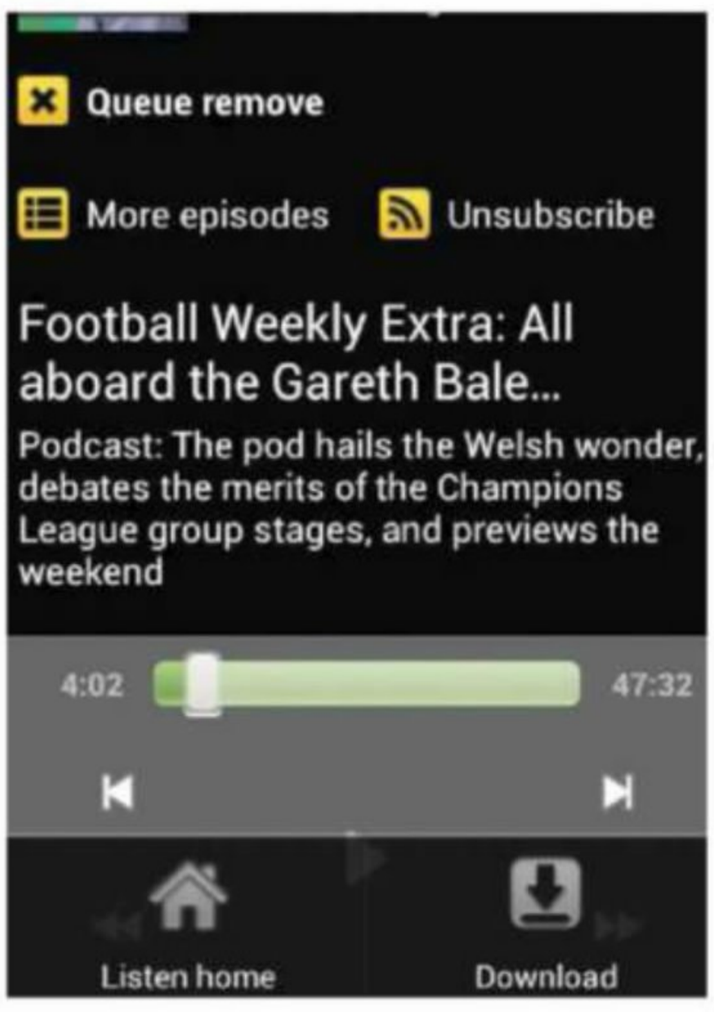
5: Subscribe and queue

To queue a podcast for downloading at a later date tap 'Add to queue', and tap again to remove. To subscribe to the podcast tap 'Subscribe', and tap again to unsubscribe.



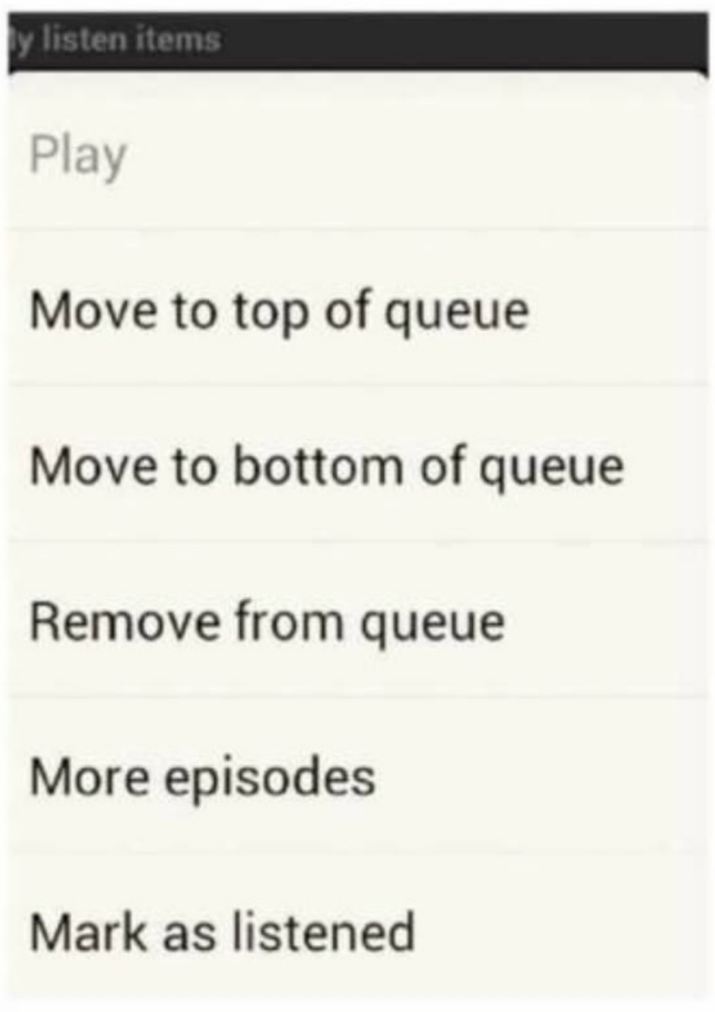
6: More episodes

To see more podcasts from the same author, tap 'More episodes'. Previously played episodes will be grey and unlistened ones white. Click 'Mark all' to mark as listened or unlistened.



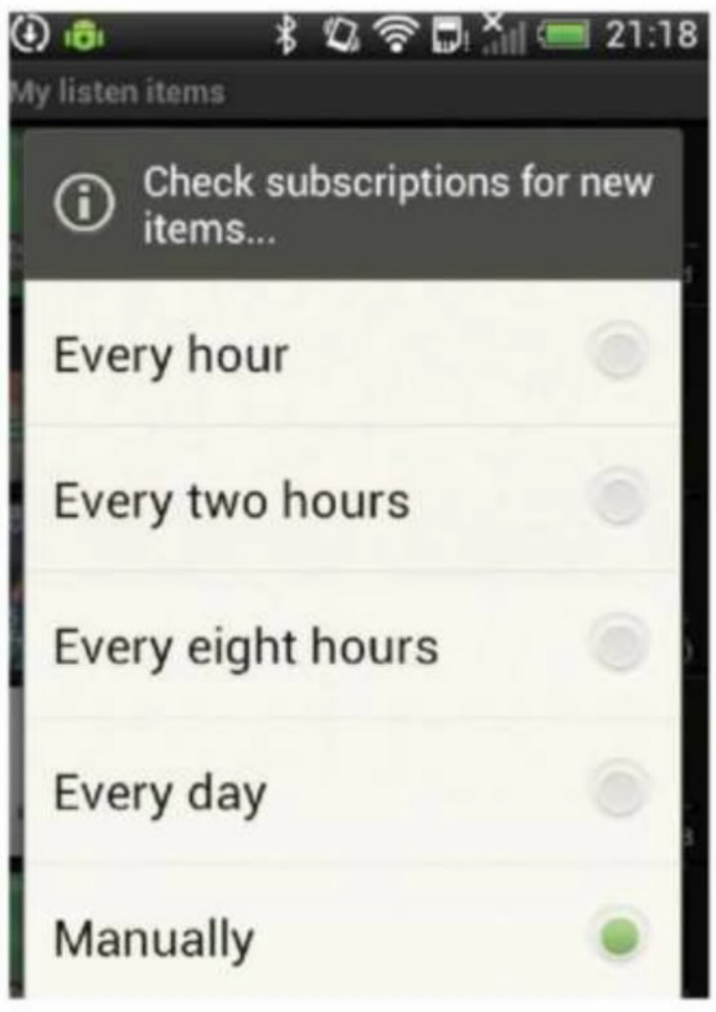
7: Download now

If you long-press the 'Recent apps' button then the 'Download' button will appear. Tap on 'Download' to save the podcast to your Android device for later listening.



8: Instant access

Long-press podcasts in the search list for 'Play', 'Add to queue', 'Subscribe' and 'More episodes' options. Long-press in 'Queued items' to arrange the queue or download.



6: Fresh Items

By default, the 'Fresh items' list checks subscriptions for new items manually. To check automatically, tap the refresh button, select 'Settings' and choose a new time increment.

App used: Movie Studio (for ICS) **Price:** Free **Time needed:** 20 minutes **Difficulty:** Beginner

Master the Movie Studio app

Give your videos the star treatment with the Movie Studio app

There are plenty of comprehensive video-editing suites out there, but not too many are available for Android phones. With the Ice Cream Sandwich OS, however, phones now have the ability to download the Movie Studio app. On phones with Android 4.0 pre-installed, the app will come built in, while people who need to update their device can download the app from the Google Play store.

As an editing tool, Movie Studio does most of the basic editing techniques you'd expect it to, as well as a few advanced things for the more hardcore editors among you. You can apply filters and text to your films, as well as do some pretty precise cropping. Multiple videos can be comped together, and videos can be exported to a variety of other apps to showcase to your friends and contacts.

Whether you're looking to add a filter to one of your videos or create the next Hollywood blockbuster, read on for our guide to using the ICS Movie Studio app.

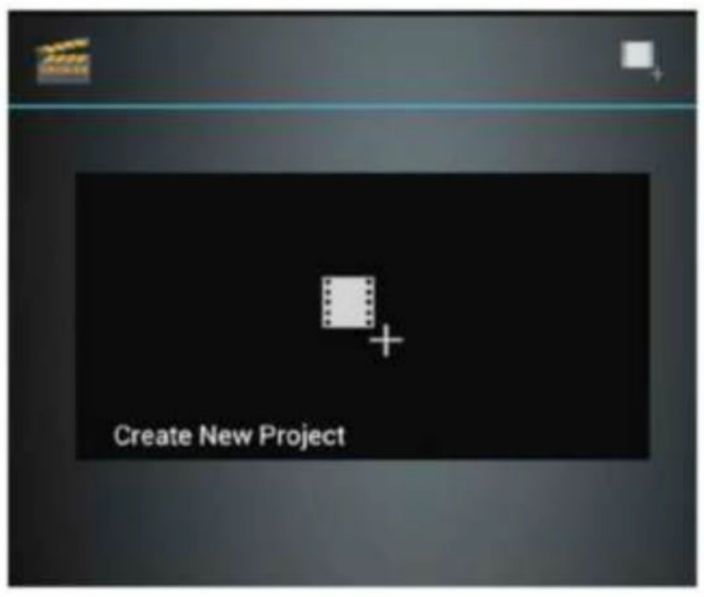
Filters
The various filters you can apply to your videos can be accessed through the '+' symbol at the top of the app. The filters vary in their complexity and can be put at different stages of the movie. Be warned though, the more filters you add, the longer your video will take to export

Loading
The panel along the top of the UI is where your video will load in the first instance. Any subsequent changes you then make to your video can be previewed in this window with the simple controls located underneath the panel

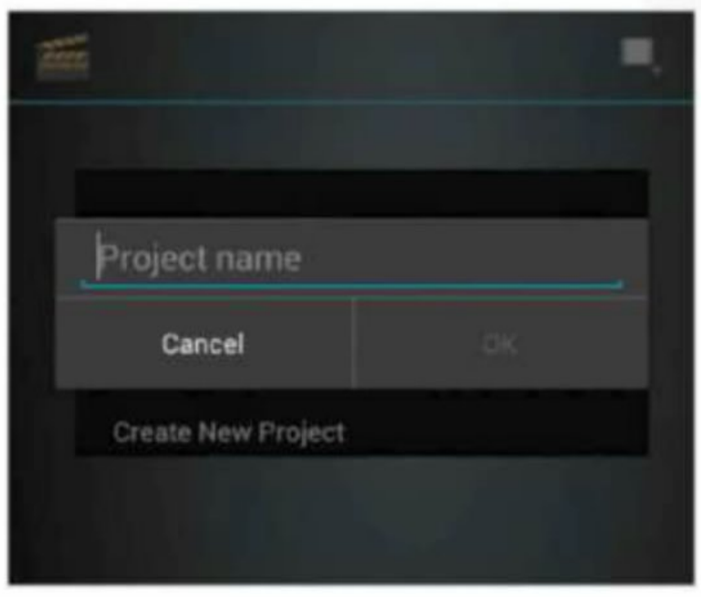
Timeline
You can pinpoint exact parts of your video by using the timeline which takes up the bottom half of the screen. The dial in the centre can be moved left and right to fast-forward/rewind to a certain bit, and can also be used as a cropping tool

Videos
Exporting your videos is a fairly lengthy process depending on their length and the amount of editing that has taken place. You can add your exported videos to various social media accounts, or send them to your friends directly

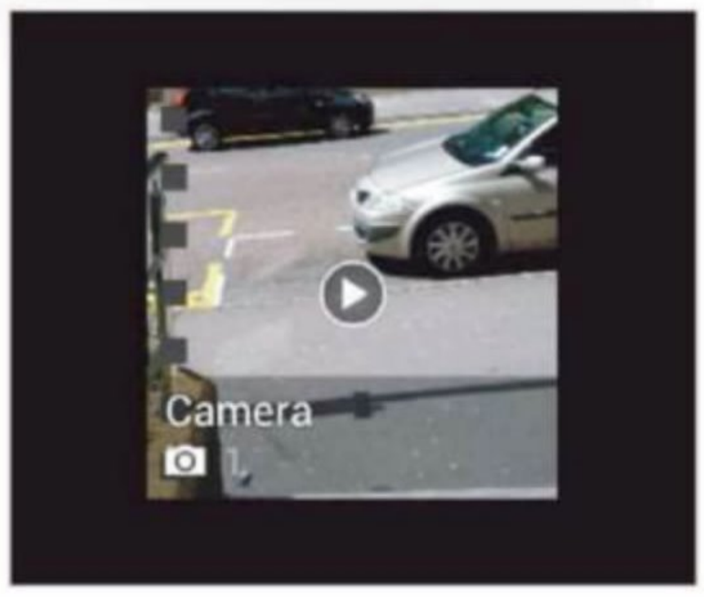
Edit video clips | Create a movie



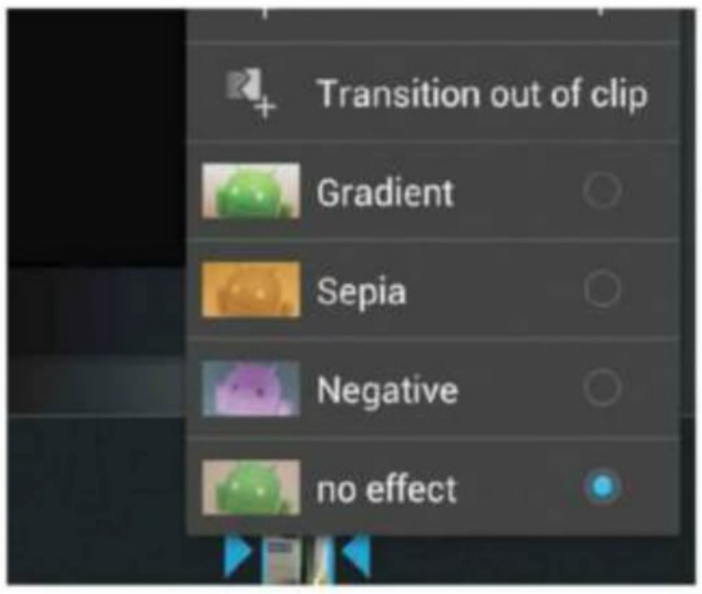
1: Create a new project
Upon opening the application for the first time, you will be prompted to create a new project. Note that any videos that you edit (and then save) will be listed on this screen whenever you load the app in the future.



2: The name game
After pressing the Create New Project option, a menu will appear asking you to enter a name for your project. Once you've given a title to your movie in the making, press the OK button to be taken to the home screen.

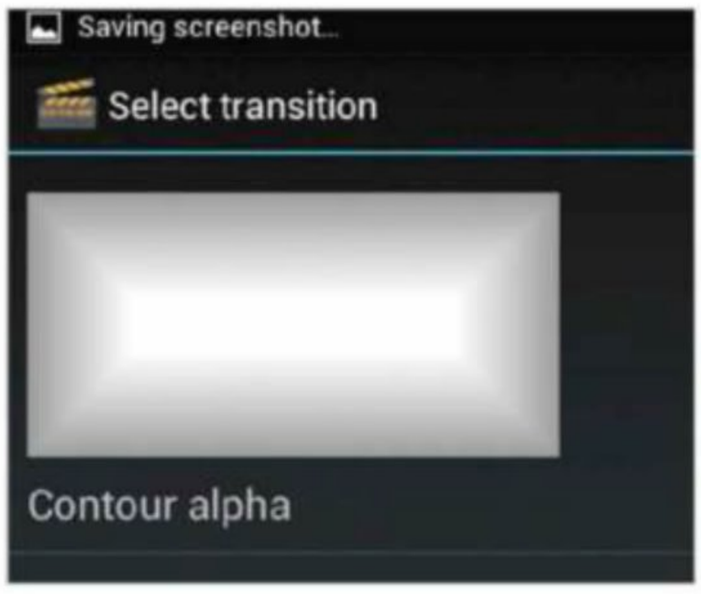


3: Import a video
While on the home screen press the '+' symbol located at the top of the interface. From here you can choose to record a video directly through the app, or import a video that you already have stored on your device.



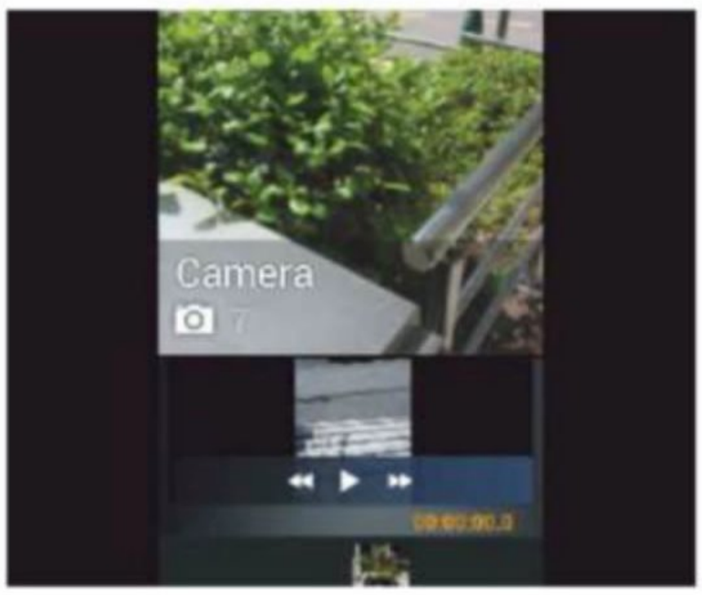
4: Add a filter

With the video selected on your timeline, press the FX symbol along the top of the app. A drop-down menu will appear asking you to select the type of filter that you want to apply.



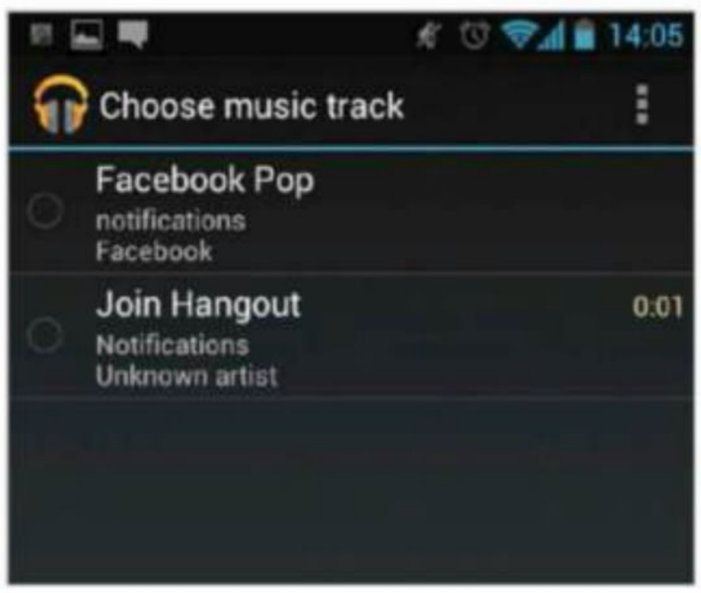
5: Check your transitions

From the FX menu, you can add effects to transitions, such as a fade-in, by selecting 'Transition into' or 'Transition out of'. Effects are applied to the start and end of movies.



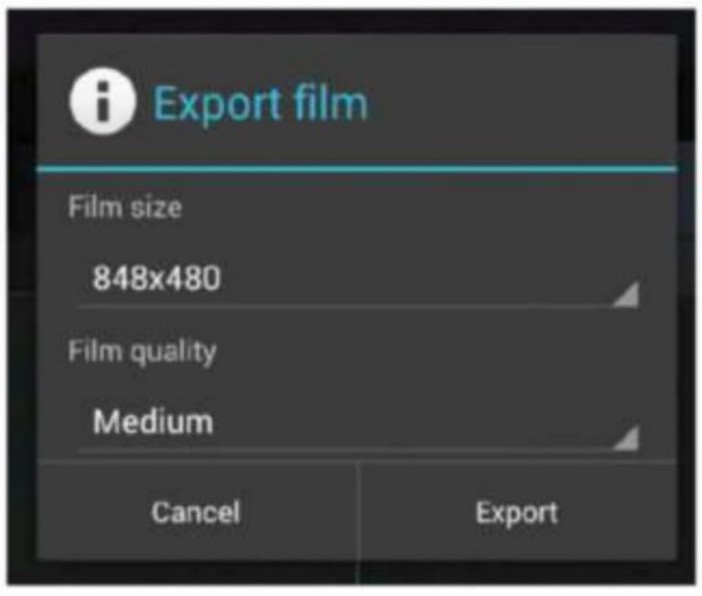
6: Import an image

To add a still image to your timeline, press the option button on the app's home screen and select Import image from the menu to open up the Gallery app. Now choose an image.



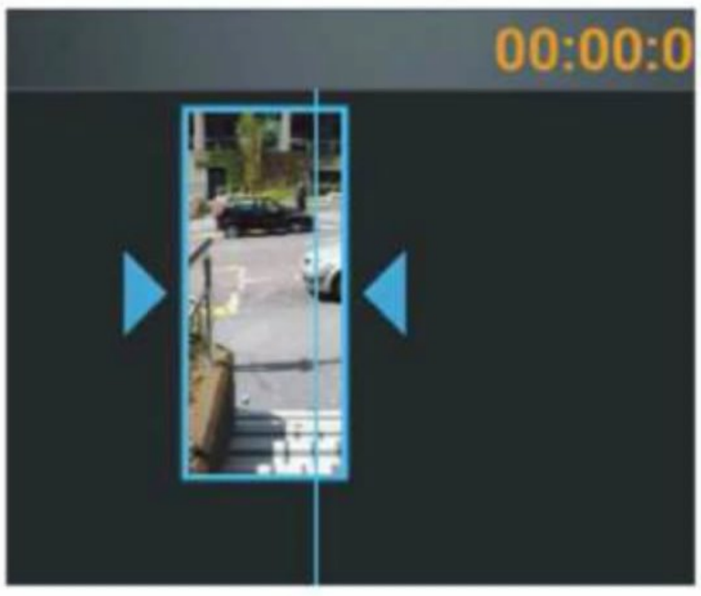
7: Import a track

You can use the same menu to add audio tracks, but this time select Import music from the list of options. The Google Music app will now appear and you can browse for a track.



8: Start to export

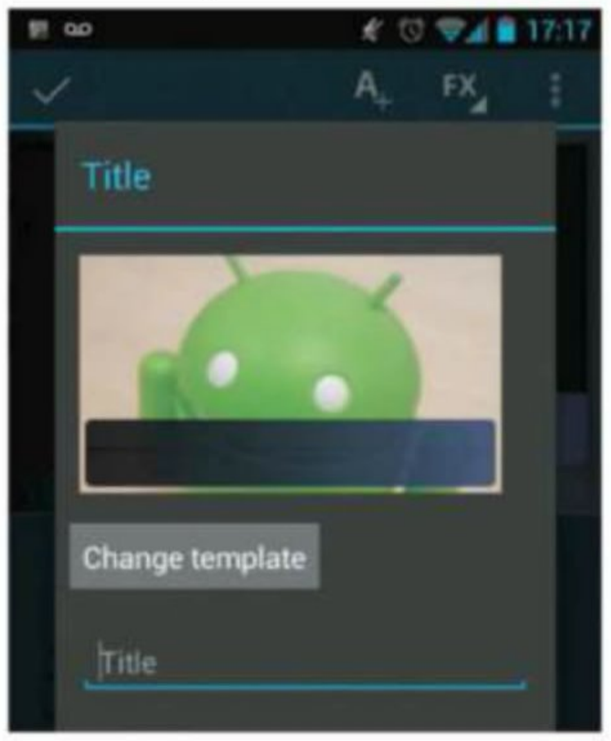
When you've finished editing, open the options menu again and select Export film. Here you can change both the quality and film size to suit your needs, then hit Export.



9: Too slow?

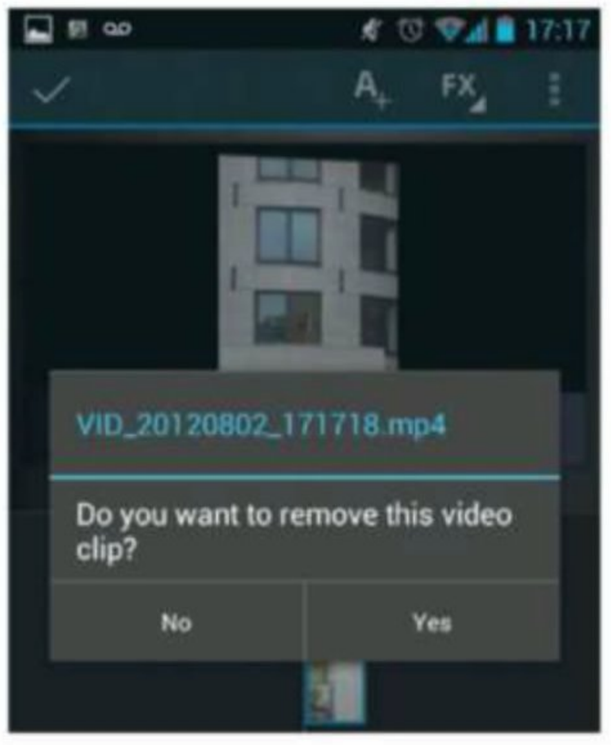
It may take a while for your video to finish exporting, depending on its size and the level of editing that has been applied. If you find it takes too long, try uploading a simpler video.

Can I add text to my movies?



Press the large 'A' button at the top of the app's home screen. This will let you add a title to your film. If you're looking to add further text, just go back to the same menu and repeat the process.

How do I remove specific clips?

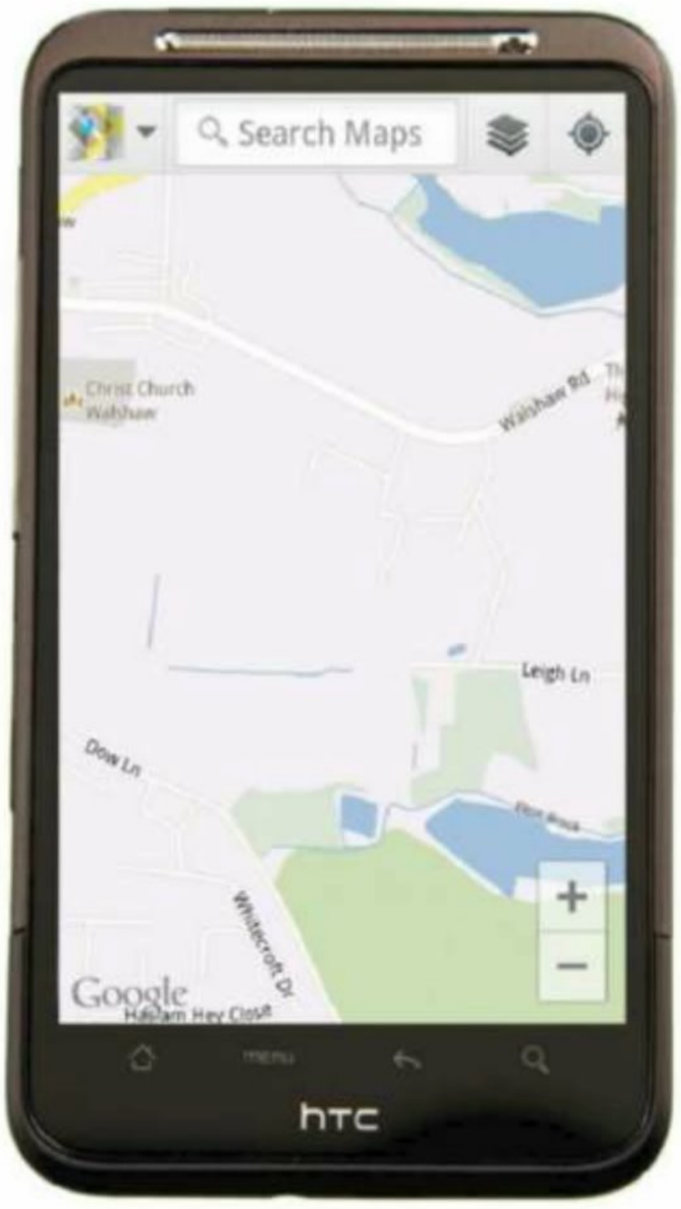


If you're looking to cut out certain clips from your timeline, simply highlight them and go to the options menu at the top of the app. From here select the Remove option and then Yes on the menu that follows.

App used: Google Maps **Price:** Free **Time needed:** 10 minutes **Difficulty:** Beginner

Use Google Maps offline by downloading areas

You don't need to be online in order to view maps any more; save them offline beforehand



It used to be the case that you had to be connected to a phone signal or Wi-Fi in order to be able to access your maps. Not any more. Google allows you to download your maps and view them at a later time. You don't need to have a signal at all and, best of all, you can use it just as before, zooming in and moving around.

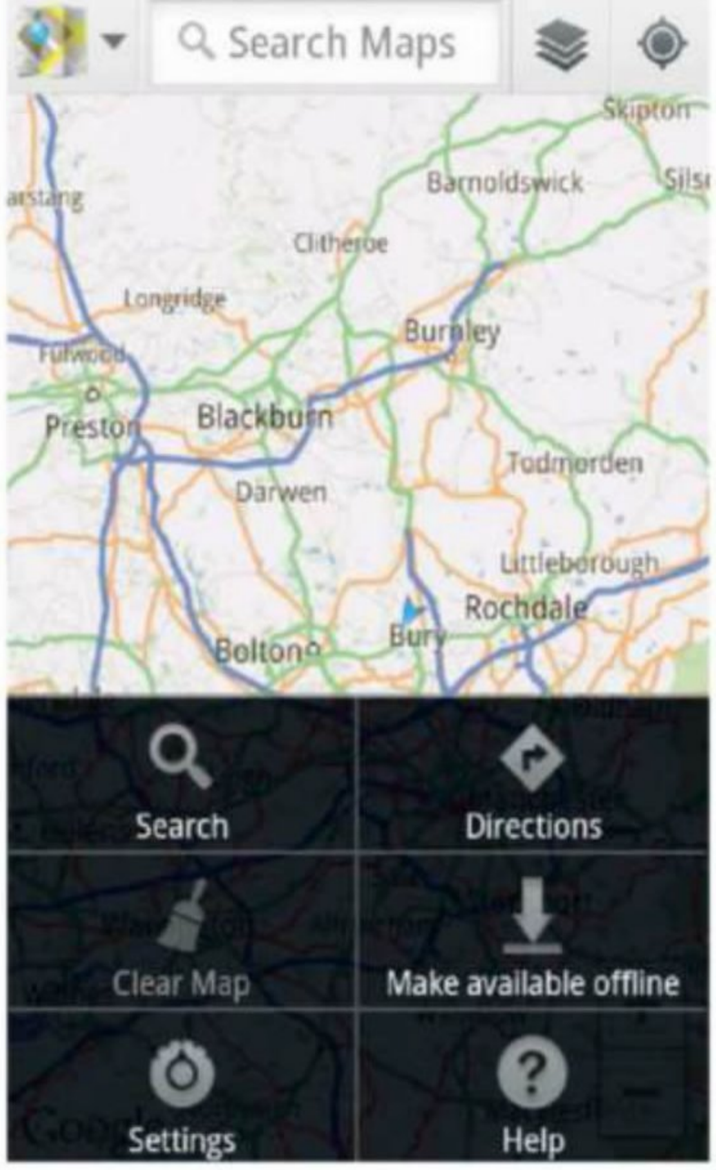
The idea behind this is that you will be able to access your maps in even the most remote of spots and, even better, be able to view them without eating up valuable data. The maps are stored in My Places and they appear in an offline tab. You can even still view your current location and use the compass without incurring a single charge. These features don't use up any of your data, either.

Using Google Maps offline will be invaluable when travelling abroad. You will be able to download a city map of Madrid, for example, and use it without fear of roaming charges. Simply read on to get started.

View Google Maps offline | Save maps to your phone

1: Open the Maps app

Ensure the app is up-to-date by going to Google Play and searching for 'Google Maps'. Tap Update and the app will install the latest version. On opening, it will find your location.



2: Save maps offline

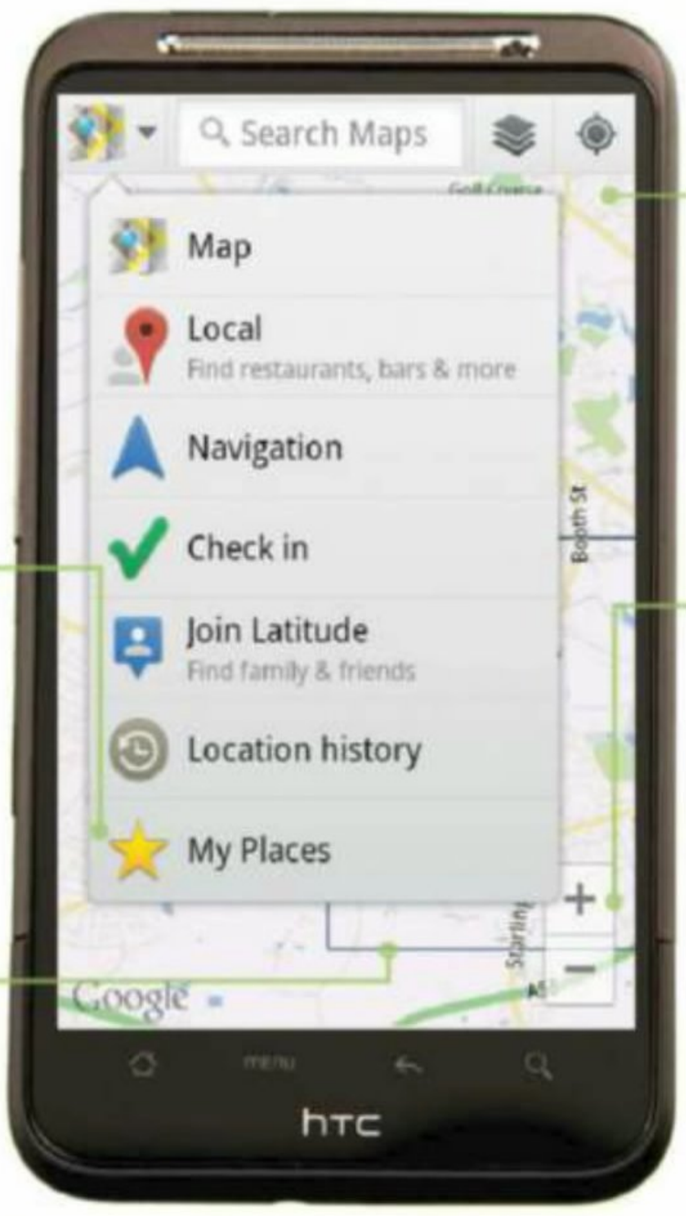
Click the Menu button on your handset to call up the Maps menu. You will see that there is an option called Make Available Offline. This saves a chunk of your map to your handset.

3: Select map area

A large box is drawn on your map that you can adjust using your fingers. You can select the part of the map that you wish. Be aware that a large selection will take up extra room.

Take your maps off the grid

Access maps when offline by saving them to your phone



Size matters

When selecting an area to download, you really do need to make sure that you are not downloading too much. Try and download the whole country and you will come unstuck. Similarly, you can't save maps that are fully zoomed in

Find your offline maps

When you create an offline map, you will be able to find it by tapping the map icon in the top left-hand corner of the screen and selecting My Places. This will show a list of all your saved maps

Zooms

Zoom in and out of your map using your fingers or using the + and – options in the right hand corner of the screen. There is no difference in performance between the saved parts of the maps. It's just that they can be used all of the time and are not dependent on a signal

The box

Anything that is displayed within the black-lined box on your map is saved offline and you will be able to access this without having to scour for a signal or Wi-Fi. You can use this section as you would any part of the map

Your location

You don't have to worry about losing track of where you are when using saved maps offline because, handily, if your GPS is still activate then the small blue arrow which indicates your current location will still be there, even if your signal or Wi-Fi connection isn't

4: Download the map

When you have made your selection, it will download to your phone. A progress bar tells you how long you have to go, which you can pause. You can also see the file size.

5: View your offline map

Now you will be able to see the section that you have downloaded, seen in black box. Clicking on the streets within will load the address from your phone and display it.

6: Zooming in

You can zoom in and out of your maps at will. They are stored within the My Places section of the app, so you only need to download them once to view them offline.

App used: Wi-Fi Finder **Price:** Free **Time needed:** 10 minutes **Difficulty:** Intermediate

Find Wi-Fi hotspots using Android

Don't waste your data, scan for Wi-Fi connections near you

Anyone with a phone will be familiar with Wi-Fi and its many benefits. Not only can it prevent you from having to waste your precious data – especially if it is capped – but it is usually faster too. It means that you can watch television programmes and stream music without worrying. At the same time, you will ensure as glitch-free an experience as possible.

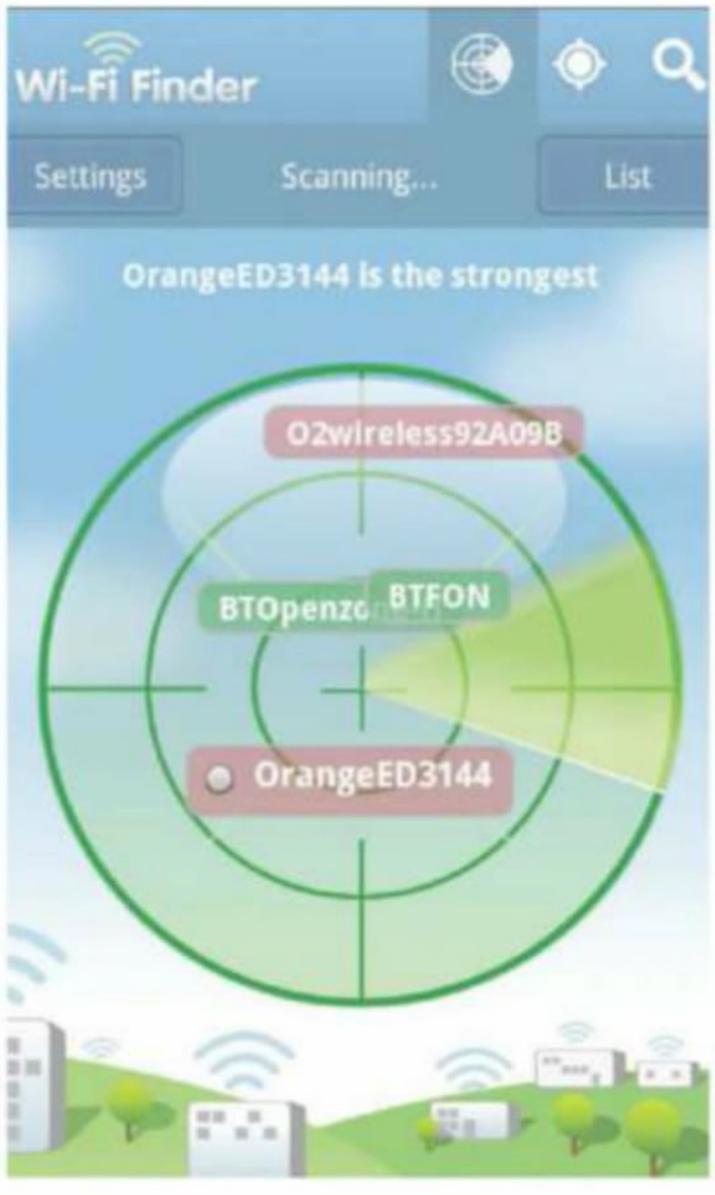
For the purposes of this tutorial, we are going to use Wi-Fi Finder by JiWire, an excellent app which lets you look for public signals as well as private ones nearby in order to optimise the chance of you hooking into a good signal. As well as packing in information about the connections, you can also plan ahead, looking for all Wi-Fi zones in a particular town or city, and filter this search, for example, by Wi-Fi which is free.

The easy to use interface, accuracy and detail of this app – and the fact it will not cost you a penny – makes it the perfect program around which to base our tutorial. And you will never regret installing it.

Wi-Fi Finder | Find Wi-Fi hotspots near you

1: Download Wi-Fi Finder

The Wi-Fi Finder app seeks out free and paid-for Wi-Fi connections no matter where you are in the world. Download and install it from Google Play and to start scanning.



2: Scanning for Wi-Fi

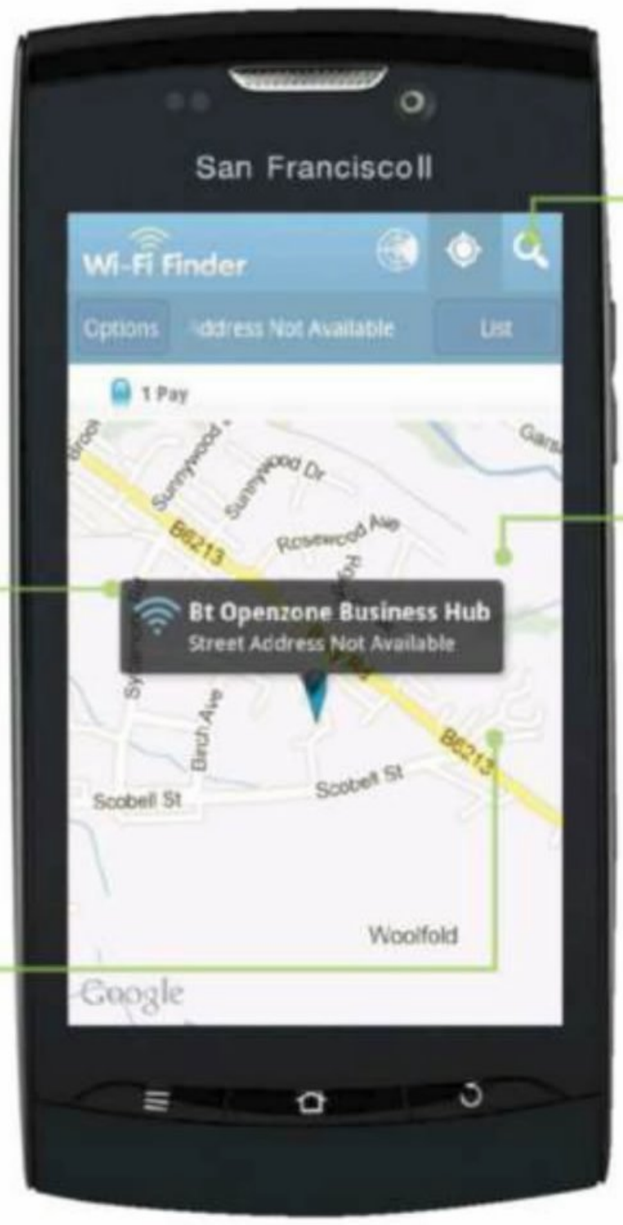
The Wi-Fi app will scan your location for Wi-Fi signals and it will flag up the one it feels is the strongest. Once this icon appears, you can tap on it for more information.

3: Connect to Wi-Fi

In order to connect to a Wi-Fi signal, you will be asked to input the key code for access. You will also be able to submit the hotspot to the Wi-Fi directory for future use.

Inside Wi-Fi Finder

Discovering hotspots near you



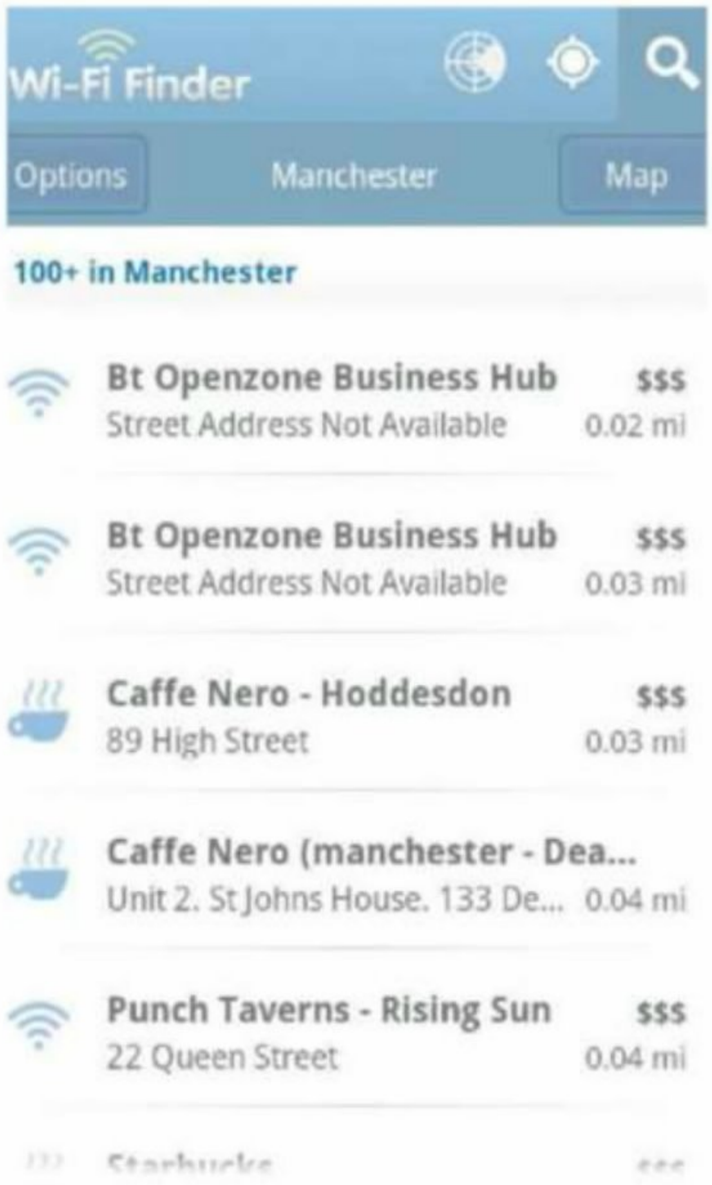
Search
Tap on the magnifying glass icon in order to search for a location via address, city or postcode. You can also see a list of any previous searches you have made

Details
When you tap on a tag, it will show you exactly what type of Wi-Fi it is so that you can make an informed decision about whether or not to use this hotspot

Public Wi-Fi
The public Wi-Fi section of the app lets you search through the free hotspots which are in your area. Each one of these is highlighted using a Google tag

Zoom in
You can use your fingers to zoom in on the map in order to fine tune exactly where each Wi-Fi hotspot is located. In densely populated areas, they will be bunched together

Search offline
One of the main reasons that you are likely to be in need of a Wi-Fi connection is to conserve your data. Once again Wi-Fi Finder has you covered, allowing users to download the Wi-Fi Directory for offline use

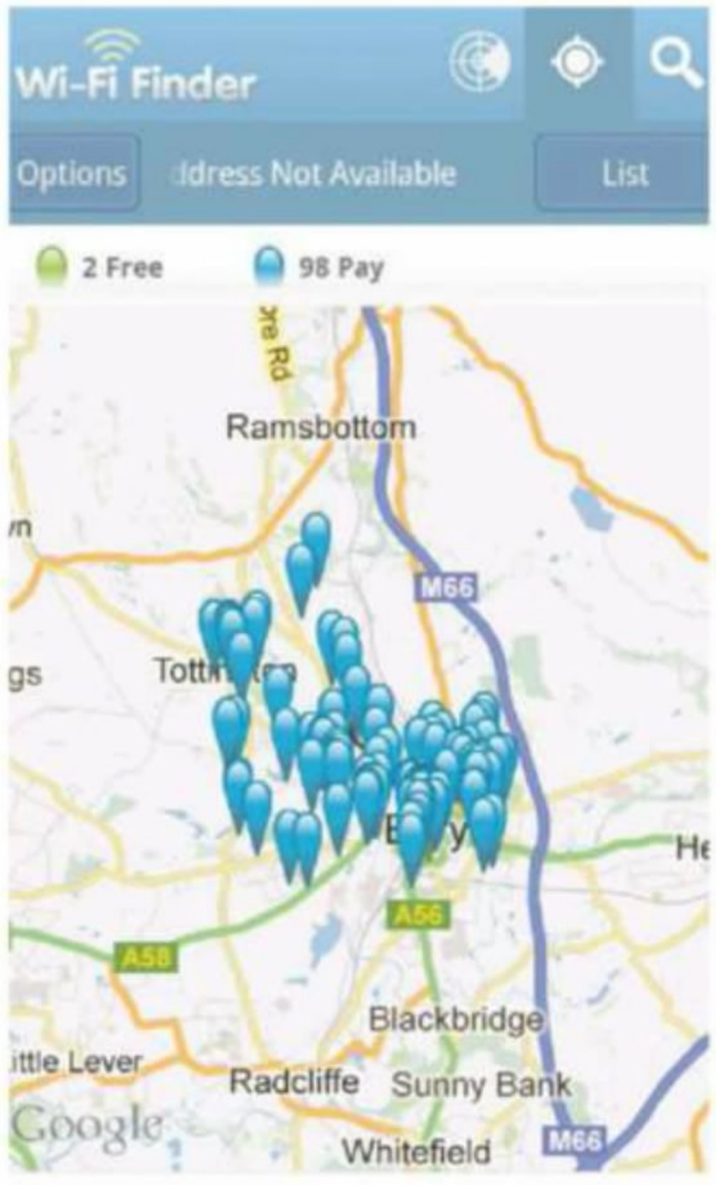


4: Manual searches

As well as scanning, you can also scour the Wi-Fi directory yourself. Tap Search Wi-Fi Directory on the homepage and type in the name of a town or city for a list of Wi-Fi zones.

5: Filter searches

Press the Menu button on your phone and you will be able to filter the Hotspots by price, venue and provider to locate the connection which is most suitable for your needs.



6: Public Wi-Fi near you

You can find public hotspots by tapping the icon for public Wi-Fi near you. This will show a Google map tagged with all of the venues, making it easy for you to connect to the net.

Time needed: 10 minutes **Difficulty:** Intermediate

Use your phone as a Wi-Fi hotspot

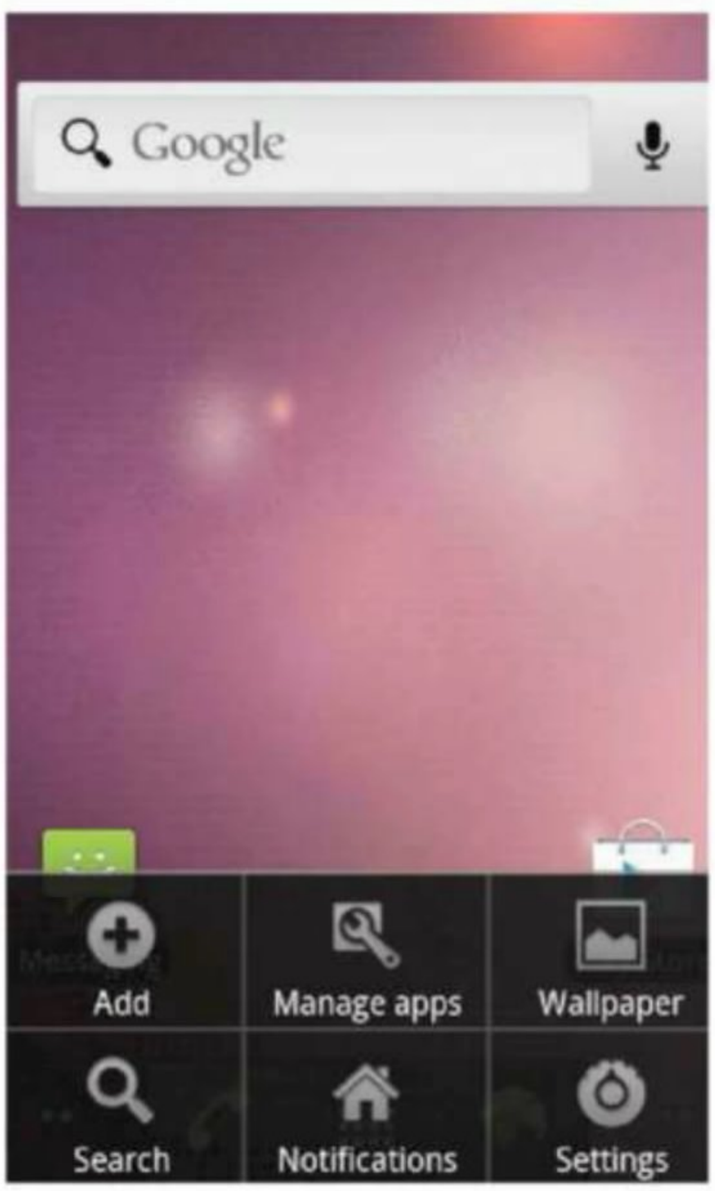
If you are using a Wi-Fi only device and you cannot get a connection, tether your phone

Picture the scene: you have a laptop and no Wi-Fi connection and you desperately need to go online to do some work. With your Android phone at hand, you need not worry because you can use your data and turn it into a portable Wi-Fi hotspot that your laptop can use to get a connection anywhere.

Such an activity is called 'tethering' and is currently the talk of the town in the smartphone industry. Using your 3G or 4G connection, tethering lets you share your Android data connection with up to five other devices and it is built into any phones that are 2.2 and higher. There are no messy cables just the Wi-Fi on your device and a few tweaks to the settings on your phone.

It's worth bearing in mind that some carriers may charge you to use tethering and, if you are on a data contract, you need to be aware that this method will eat away at that data so do use it sparingly. After all, you don't want to have a slow data connection on your phone.

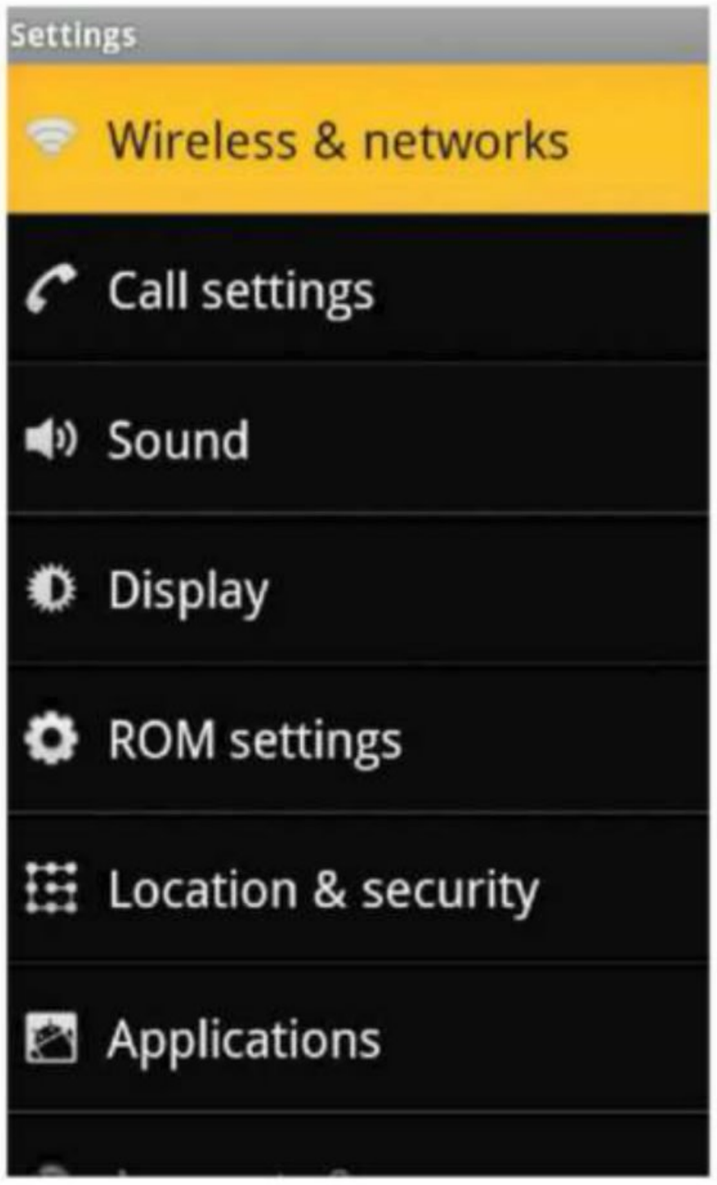
Tether your Android phone



1: Go to Settings

If you are running the Android 2.2 operating system or later, you are able to tether your phone to another device. Go to the Settings on your phone by tapping the Settings icon.

Set up a portable hotspot



2: Wireless and networks

Now select the Wireless and networks option on the Settings screen. This will take you to the section where you are able to effectively turn your phone into a Wi-Fi hotspot.

3: Share connection

Select the Tethering and portable hotspot option from this menu. This will then give you two options: via a USB or as Wi-Fi and we are going to look at the latter.

Inside your portable hotspot settings

Making sure your Wi-Fi connection works and is protected

Tick

When the Portable Wi-Fi hotspot option is ticked, this means the portable hotspot is active and you can now use your phone to tether other devices to it

Blue

You will see that your phone is being used as a hotspot by looking at the top of the screen and noting the colour of your Wi-Fi signal indicator. If it is in a blue square, then you are turned on

Security

Having an open connection to your Wi-Fi hotspot would allow other people to hook in on your data and that could be costly

WPA2 PSK

Using Open will allow anyone access to your Wi-Fi, but the latter option will let you specify a password that you can then use when connecting via another device

Tethering older Androids

If you are using a version of Android that is 2.1 or lower, such as Eclair, Donut or Cupcake, then you are still able to tether your tablet or phone to another device – with the help of an app. Download PdaNet or Easy Tether for the best results

4: Create portable setting

You want to set up and manage a portable Wi-Fi hotspot. Tick the option next to Portable Wi-Fi Hotspot in order to do this and, after a short time, it will open up a connection.

5: Protect your connection

Like any other hotspot, your connection will need protecting. In the portable Wi-Fi hotspot settings, give your network a name. Then tap on Security and create a password.

6: Connect a device

Now search for a Wi-Fi signal on the device you wish to tether, just as you would if you were in a cafe, for instance. Select your new connection and type your password to access.

App used: Splashtop Remote Desktop **Price:** £3.13/$4.99 **Time needed:** 20 minutes **Difficulty:** Intermediate

Control your desktop with your Android

A guide to remotely accessing your PC from an Android tablet or phone

Remotely accessing your desktop from your Android device isn't just a case of showing off some of the cooler things your phone or tablet can do anymore. It's now a brilliant way to grab your files and photos on the go, surf the web with your own browser settings, and finish important pieces of work when you're out and about.

There are plenty of apps out there that will give you some degree of access, usually turning your touchscreen into a mouse replacement and letting you type with your keyboard, but we're going to take a look at Splashtop Remote Desktop, which gives you complete control over your Windows PC or Mac. It can be a quite complicated process getting your PC and Android connected, but Splashtop offers the simplest way around the many pitfalls, and the experience you get at the end is pretty much revolutionary.

Still, make sure that you've got a few minutes spare, and that you're next to your desktop computer, before having a go at our step-by-step tutorial.

Remote control | Access your PC or Mac with your phone

1: Phone vs tablet

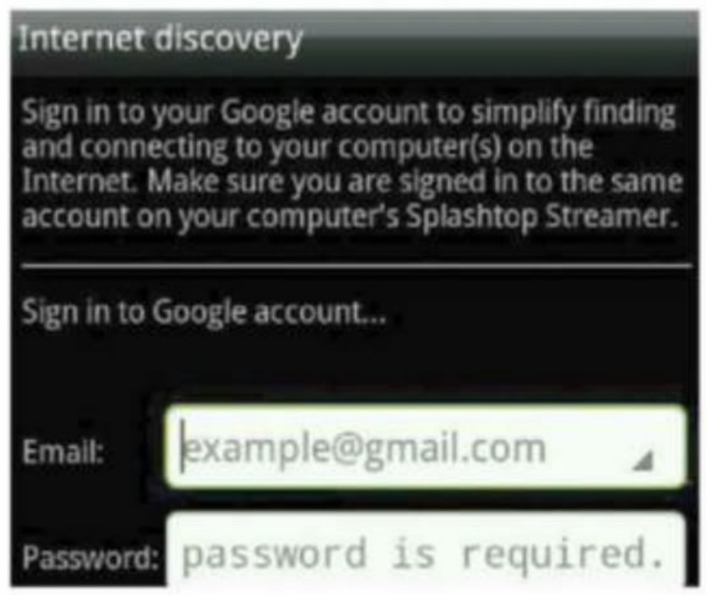
There are two versions of Splashtop on Google Play: a regular one for phones, and a more expensive HD one with improved visuals for tablets. Install the one you want.

2: Download the streamer

On your PC, go to **splashtop.com/remote** and click the Get Streamer button. This program will talk to your device, and you'll need to install it on PCs you want to access.

3: Set up your security

Once the Streamer has been installed, you'll need to set up a memorable security code so that only you can get access to your PC. After that, click on the tab that says Network.



4: Google account

Adding your Google account makes things a lot easier at this stage, so first type your account details into the Streamer and then into the same app on your Android device.

5: Let's get connected

Once your details are in both the app and the Streamer, your PC should automatically pop up in the list of available desktops in the app. If not, read around **splashtop.com/remote**.

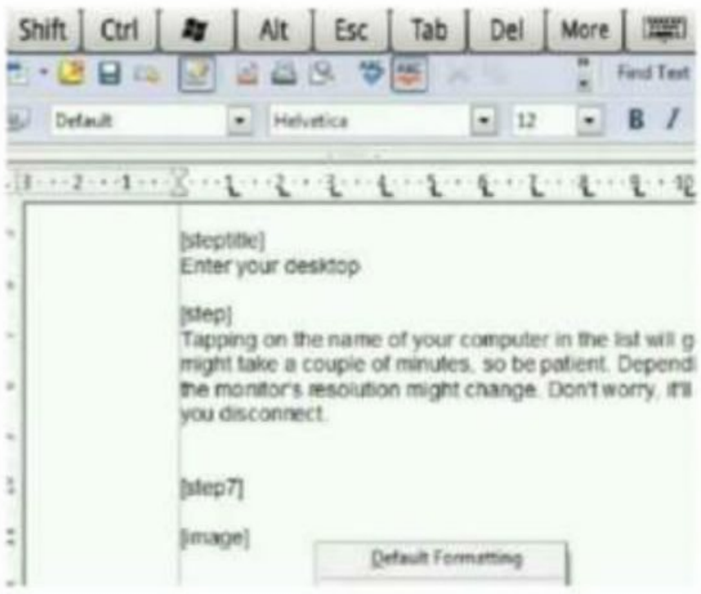
6: Enter your desktop

Tap on your computer in the list to connect. It might take a couple of minutes, so be patient. Depending on your PC settings, the monitor's resolution might temporarily change.

7: Have a look around

Your desktop should now be streaming directly to your Android device. Take a minute or two to get comfortable with the controls in the app, and read the advice that pops up.

"It's a brilliant way to grab your files and photos on the go, surf the web with your own browser settings, and finish important pieces of work when you're out and about"

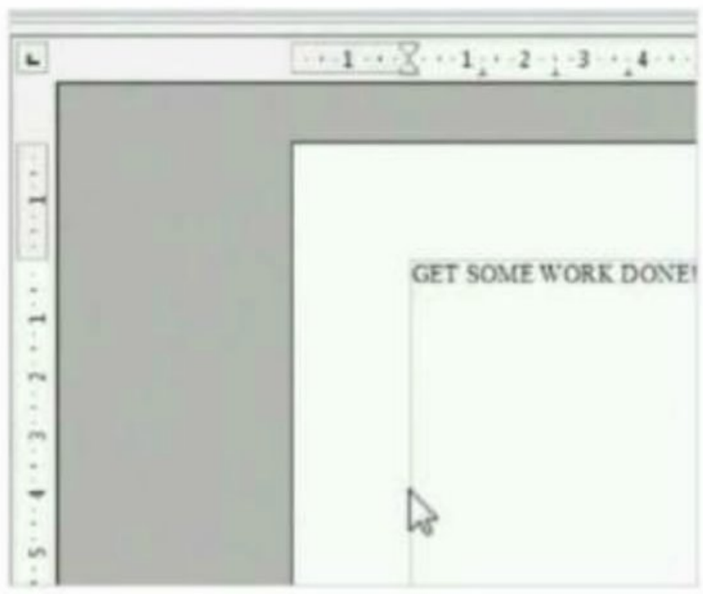


8: Learn your controls

Tapping the screen with two fingers swaps between mouse and swipe controls (pinch to zoom and two fingered swipe to scroll). Tap the bottom-right button for the keyboard.

9: Know your limitations

When typing, remember that while your Android device might be showing you the predictive text corrections, your PC will only be displaying the characters you're tapping.

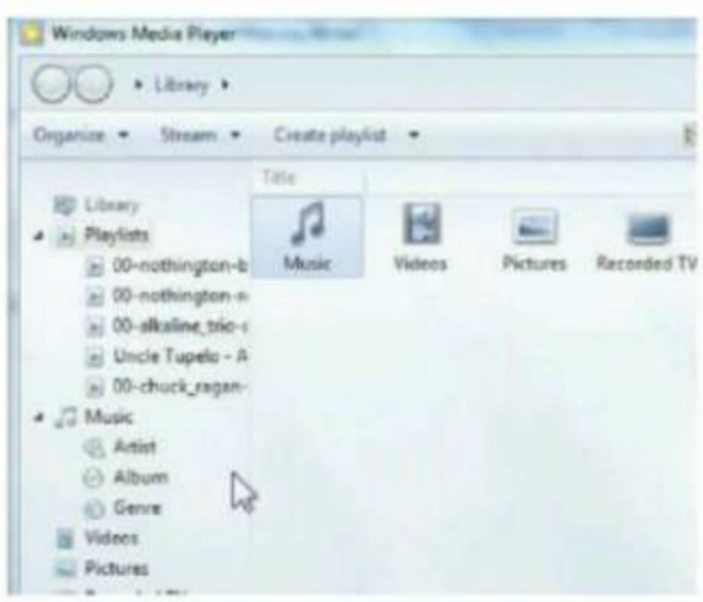


10: Get some work done

If your PC is left on and running the Streamer, you can connect to it with your Android whenever it has an internet connection, not just when you're on the same Wi-Fi network.

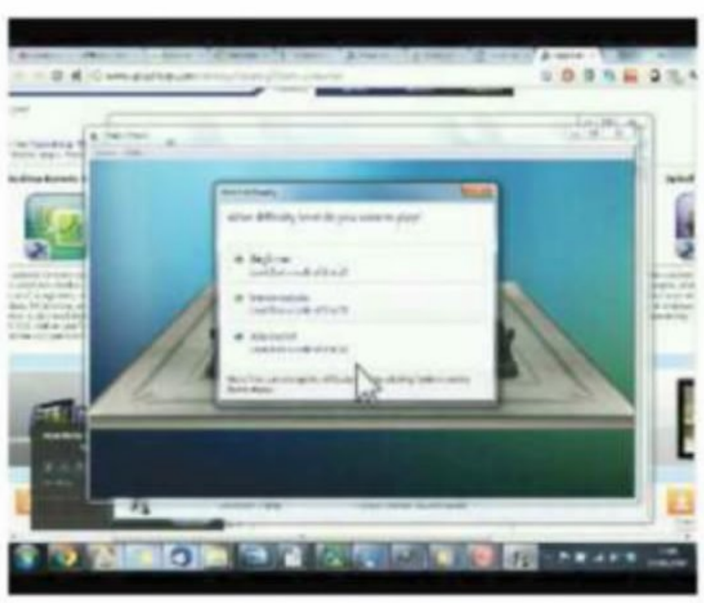
11: Connect more computers

To connect more PCs, follow steps 2-6 in this tutorial for each one you want to access. Add your Google account each time so your devices will automatically detect each other.



11: All work and some play

It's not all about work, though. The app automatically mutes your PC but allows sound to come through your Android, enabling you to use it as a huge MP3 player.



13: A world of possibilities

This is just the tip of the iceberg when it comes to Splashtop, so experiment! Before long, you'll be controlling all the data in your life with a few taps on your Android's screen.

App used: CellAgent **Price:** Free **Time needed:** 20 minutes **Difficulty:** Intermediate

Find and protect your phone

We show you how to maintain full control over your device, even if it's on the other side of the world

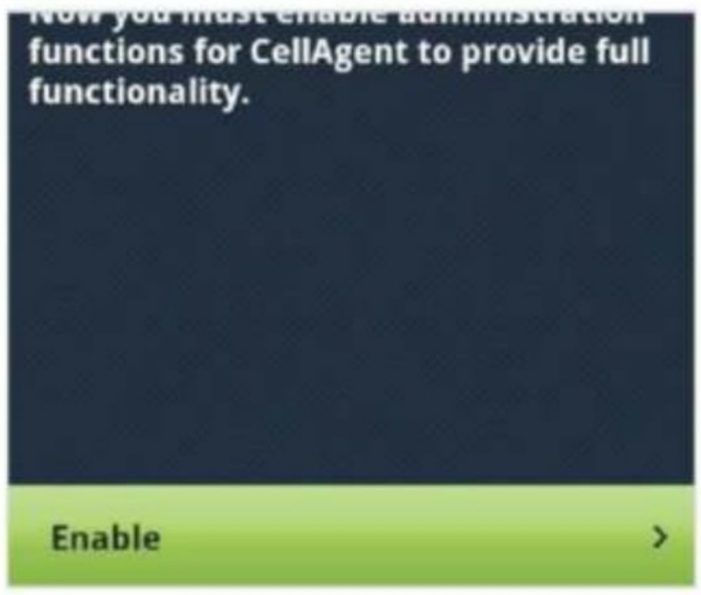
Phones are valuable bits of kit – and not just the devices themselves, but also the information that's on them. It makes sense to employ some added security so that you can protect the data within if you happen to lose it. The CellAgent app is brilliant for this as it allows you to lock your device and erase the contents if you need to. You can also use this app to track the location of the phone on a map, which you can view from the CellAgent website, making it a useful service for parents who want to check in on the whereabouts of their children.

Setting up this service is simple. You just download the app, then create an account and log onto the CellAgent web service from any internet browser, log in using the same details and all of the information regarding your registered device can be tracked from the website. You can also send messages to your device, check the data usage and more. We'll guide you through the process of setting this up.

Track your phone | Keep data safe

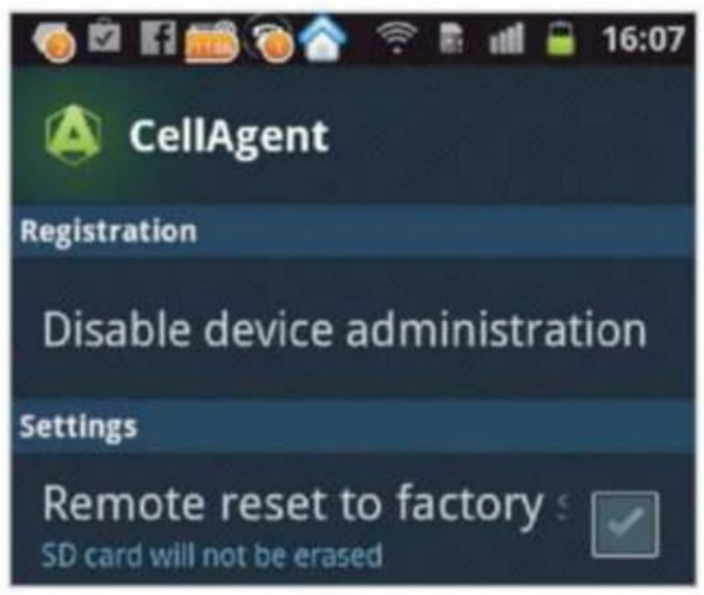
1: Create an account

After launching the app for the first time, you will have to register an account. Use an existing Google account, an existing CellAgent account or simply create a new CellAgent account from scratch. Choose the applicable option and then tap 'Next step'.



2: Enable functions

To get full functionality from the app, you must enable the administration functions. Tap on the 'Enable' option and then you'll be able to view a list of the administrative functions that should be enabled to use Lock & Erase SD. Tap on the 'Activate' button to continue.



3: Modify your settings

Once you are registered and logged into the app, you will come to the main menu where you can disable the device administration, get help and support using the app, and tick a couple of important settings, which we will explore now.

4: Restore & erase

By tapping 'Remote reset to factory settings' and 'Remote erase SD card', you will have this option, should your phone get stolen, etc.

5: Log on to the website

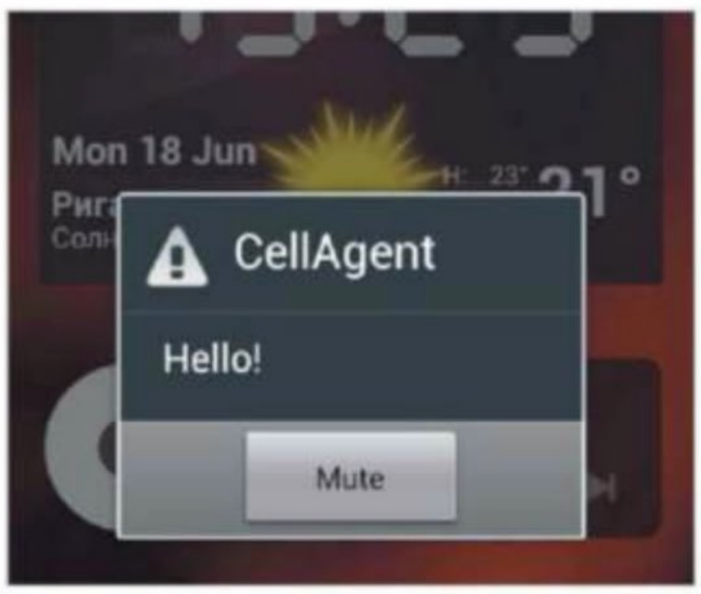
Point your web browser towards **www.cellagent.net/en/Login** and log in to your CellAgent account.

6: Your CellAgent control hub

All of the main options for controlling your phone will be displayed in the main panel. Click on 'Locate' to find your phone on a map.

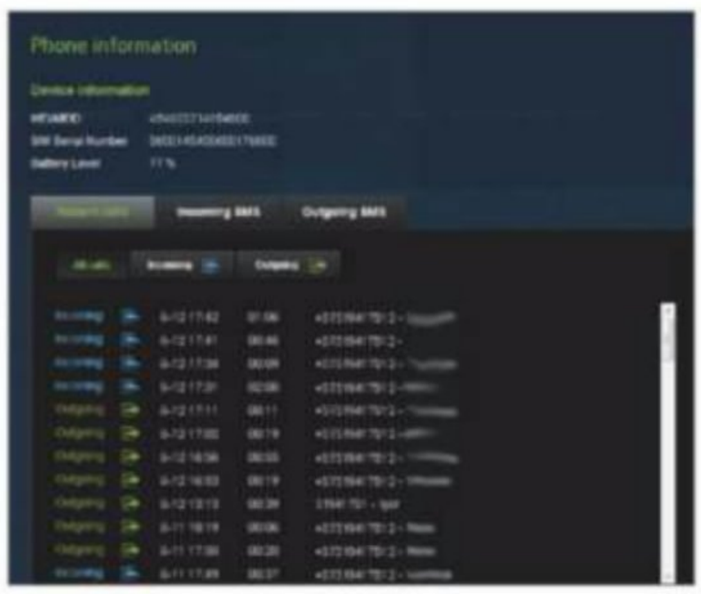
7: Track location

If you click on the 'Track Location' option then you will be able to track the location of your device within a predetermined time span.



8: Send an alarm

By clicking on the 'Alarm' option, you will be able to send a message to the device and this will arrive with a fanfare.



9: Get phone information

In 'Phone information' you will be able to see all incoming and outgoing phone call logs, as well as SMS contents for the previous ten days.

10: Remotely lock your phone

The Lock feature is very useful. When locking your phone you will need to enter a code, which will need to be entered on the device itself in order to allow access once again.

11: In the event of no internet

If there is no internet connection available for your lost device, then a fallback option exists. You will need to send a SMS from another device to receive its coordinates.

12: Enter the coordinates

Click on the 'Enter CID/LAC/NET parameters' link under the map and manually enter the coordinates that you received in the message. Click Display to see where your device is.

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"By gaining root access to your phone, you can customise every aspect of your device"

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Hack your phone

… to longer battery life, faster performance and better apps

How to start hacking your Android phone, and which ROMs you need to install

For the tech enthusiast the ability to install custom ROMs is one of the great bonuses that comes with owning an Android phone. You buy your phone, use it for a while as the manufacturer intended, then, after the newness factor has worn off, you start hacking it to make it work exactly how you want it to. Most manufacturers now even acknowledge this fact, with companies like HTC, Sony and Asus providing tools to aid this process.

When you flash a new ROM to your phone you are replacing all of the software that was on it with something new. The entire OS is wiped and a new version installed. Sometimes this might be a similar version to what you had before, but tweaked to make it faster or introduce a few new features. Sometimes the new ROM might remove the customisations that the manufacturer added to help differentiate its product from the rest of the market. And sometimes a new ROM can bring you a new OS altogether. The rollout of new versions of the Android OS to older handsets is notoriously slow, and the custom ROM route is very often the quickest way to keep your phone up to date.

Taking the custom ROM route does not come without a few implications. The main being the effect on your warranty. If you flash a custom ROM to your phone then it goes without saying that you won't be able to get support from the manufacturer or your network should you encounter software problems, or hardware problems caused by software issues, such as problems with the camera app. Likewise, if your phone fails to boot during the flashing process you'll need to fix it yourself (but there is excellent community support that will help you).

The warranty issue with regard to hardware issues is less clear. Physical problems with your phone that have no connection to software, such as the USB port coming loose, ought not to be affected by rooting and flashing. As a general rule if you can return your phone to its locked, unrooted state, then you should do so before you make a claim on the warranty.

In order to flash a custom ROM you will need to have done two things on your phone. First you need to have rooted it. This is the process that gives you 'root access' to your phone's OS, meaning that you can access or replace important OS files themselves, something that is always prevented in devices as they're sold – mostly for security reasons. Second, you will need to have unlocked the device's bootloader. The bootloader controls what happens when the phone boots up. If it is locked when it encounters 'unauthorised' software, such as a custom ROM, then it will prevent the phone from booting. If it is unlocked then it will allow this software to continue running as normal.

Most rooting procedures – and they differ from one handset to the next – normally encompass unlocking the bootloader at the same time, where required. Some phones, like the Galaxy S III, have an unlocked bootloader by default, and where they are locked manufacturers are increasingly providing tools to correct this (**htcdev.com** and **unlockbootloader.sonymobile.com** are two such examples, although in both cases they come with warnings about how the process may invalidate your warranty). There's a lot of discussion about these official solutions within the Android modding community, with many suggesting that even if you revert your phone back to its original state should you ever

Launcher or ROM?

Do you need to flash a ROM, or will a launcher work?

Flashing a ROM is a pretty straightforward process, although once you've been using your device for a while the whole backup and restore procedure for your data can be a pain. If you only want to freshen up the look and feel of your phone then installing a new launcher represents a good compromise. Launchers like Apex and Nova replicate the look of a plain Android installation, and are fast and easy to use. They run as apps, so make no permanent changes to your system, making it a breeze to try out several before you settle on one. Launchers still give you access to the device-specific apps that your phone came packaged with, but not the widgets from HTC Sense or Samsung's TouchWiz.

need to send your phone in for repair, the manufacturer will have a record of you having previously unlocked the bootloader (via the IMEI number that you need to supply during the unlocking process) and could theoretically take a hard line on warranty claims. Of course, if you have insurance for your phone then you'll be covered regardless.

The other issue that you should be aware of is that a rooted phone will no longer receive over-the-air updates from the manufacturer. Since custom ROMs based on the updated version will be available almost instantly, however, this won't inconvenience you as you can just go and download them.

So you're ready to flash your ROM. The question now is where do you find them, and which one should you choose. ROMs are generally split into two groups. There are those based on AOSP (the Android Open Source Project) and present a 'pure' version of the Android experience; and there are those that are device specific, based on the device's own ROM, but tuned or streamlined for a particular purpose.

Using an HTC phone as an example, the first kind of ROM here would remove the HTC Sense UI and all of its software and widgets, while the second would keep Sense but maybe remove some of the extra apps, or perhaps bring over some of the features of a new version of Sense to an older HTC device. This is crucial to your choice of ROM: do you want to keep and enhance the existing software on your phone, or do you want to remove it altogether?

As a general rule, replacing the manufacturer's software with a Vanilla version of Android delivers a noticeable speed boost, but you should remember that it can cost you a few features as well. The camera app in the HTC One series, for instance, is regarded as the best camera software in any phone, but you will no longer have it if you remove HTC Sense. It's likely that you'll find yourself trying several ROMs before you settle on one you like.

There are many sources online for ROMs. The forums at **xda-developers.com** are the primary source, with sections dedicated to virtually every handset. Most ROMs are designed for specific handsets, but there are a few that are widely available for multiple devices, including CyanogenMod, AOKP and MIUI, and if you choose those you'll find websites specific to their development (and community forums providing support).

These multi-device ROMs represent the best starting point for the new user, and also the best place to go for a day-to-day ROM that you can install and then largely forget about. They have the largest user base and usually deliver the best balance between performance and stability. CyanogenMod, Oxygen and AOKP (Android Open Kang Project) are stock Android builds that are largely stripped back in terms of apps and features, but have large numbers of options for those that want to configure and tweak their phones. Modaco Custom ROMs (MCR) are based on a device's official ROM – so you'd keep Sense on an HTC device, or TouchWiz on a Samsung one – but are tweaked and optimised for best performance. Through the forum at **www.modaco.com** you can also customise which apps are included.

Another major ROM suitable for general day-to-day use is MIUI. This represents

ROM in focus
CyanogenMod

Available on: Over 50 devices

CyanogenMod is the most famous of all the custom ROMs for Android, and has amassed more than two million users. CyanogenMod is currently available as version 7, which is based on Gingerbread (Android 2.3), and also as version 9, which is based on Ice Cream Sandwich. CyanogenMod is based on the Android Open Source Project (AOSP), which is the pure source code for the Android OS. This is what gives it its popularity – CyanogenMod comes without any customisations that are common with phone manufacturers. It is heavily optimised to produce excellent performance in both speed and battery life but also comes with a large number of tweaks and options that enables the user to customise their experience. These range from the ability to grant or revoke permissions from third-party apps, to Phone Goggles, which prevents you from sending inappropriate text messages when you are worse for wear! The Google apps are not part of the CyanogenMod ROM, but are available to install separately on your device when you flash the ROM.

ROM in focus

AOKP

Available on: 26 devices

AOKP – which stands for Android Open Kang Project (a play on AOSP and the term 'Kang', which means leaked or stolen code) – is a relatively new custom ROM that launched late last year. Like CyanogenMod it is based on the Android Open Source Project and gives users access to the Vanilla Android OS. As a result the differences between AOKP and CyanogenMod are relatively small, at least at first glance. Probably the main benefit of choosing AOKP over CyanogenMod is for its ROM control feature. This collects together all the tweaks and settings specific to AOKP into a single location. Almost all of the most crucial parts of a phone's UI are up for grabs – from big things like the lockscreen to minor concerns such as how the LED flashes. . If you have a Galaxy Nexus, in particular, you'll find lots of goodness from AOKP.

a significant departure from the normal look and feel of Android, with completely redesigned icons (and support for skinning) and even the removal of the traditional home screens and apps panel paradigm, replacing it with a series of home screens onto which all your stuff goes, much like on an iPhone. It's a very popular ROM, but one that tends to polarise opinion among those that try it.

If you're looking for a ROM for a particular purpose you'll need to investigate those that are built for your specific model of phone. The main things you'll be looking to add are improved speed, longer battery life, or additional apps.

Thanks to the rise in popularity of benchmarking software, speedy ROMs are very common, as developers look to deliver faster performance than their peers. Some will be overclocked, meaning that the processor will be set to run at a faster speed than was originally intended. This has an instant adverse impact on battery life, and will likely cause the phone to heat up more than it would, which can be the cause of other potential problems.

For extending battery life you're likely to get better results from a new kernel than from a ROM. The kernel is a program that controls the interaction between hardware and software, and so can control things like how much power a phone will use to maintain a connection to a 3G network. A more power-efficient kernel can produce a noticeable improvement in battery life.

Some ROMs will express compatibility with certain kernels, and you can also check the feedback for the ROM you're using to see which kernels others have got. Flashing a kernel uses the same process as flashing a

Which ROM should you choose?

The best choice of ROMs are for Samsung, HTC and Sony devices. Here's our pick of the ones you should look out for

SAMSUNG

Lite ning
An ICS ROM based on the original Samsung firmware. Tweaked for speed, it is one of the most popular Galaxy S II ROMs.

Hydra-H²o
A fast and stable ROM for the Galaxy S II based on AOKP. The Vanilla Android UI is good for everyday use.

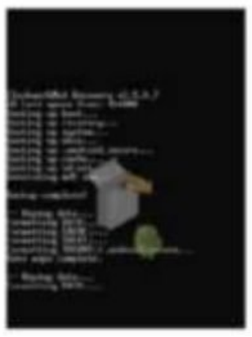
CheckROM RevoHD
This super-quick and steady ROM offers good battery life as well as the ability to customise the ROM when you flash it.

Keep your data safe… Create a Nandroid backup

A Nandroid backup is a full backup of your phone – the ROM, the apps and all the data you've got. You can't selectively restore data from a Nandroid backup, instead it is used when you want to roll back to an older, reliable ROM, and is absolutely invaluable if you ever encounter problems.

Step 1

Download ROM Manager, click on Backup Current ROM, give the backup a name and then click OK. You might get asked to allow ROM Manager super user access and you'll need to grant this.



Step 2

The phone will now automatically reboot into Recovery Mode, backing up your current ROM to the SD card. This can take a little while so make sure you aren't expecting any important calls!

Step 3

To restore a ROM, boot into Recovery (usually by holding volume down and the power button) and navigate to the Backup and Restore menu. Choose Restore and pick which ROMs to restore.

LeeDroid
Available for most high-end HTC devices LeeDroid combines all the best bits of HTC Sense into a powerful and very useable ROM.

Revolution HD
Available on many HTC phones and based on the original ROM, Revolution HD is subsequently very fast and stable.

InsertCoin
InsertCoin ROMs bring the best bits of the latest version of HTC Sense to your slightly older HTC handset.

SONY

Arconium
ICS ROM for the Arc stripped of bloatware and based on the official Sony update.

KA07 Xperia S Speed
An enhanced version of the stock Xperia S ROM that includes improved video quality and a few ICS flourishes.

ROM in focus
MIUI

Available on: over 20 devices

Available from en.miui.com, MIUI is one of the most polished and popular of custom ROMs. It has versions for more than 20 Android phones, and is available in Gingerbread and Ice Cream Sandwich versions. MIUI is the best ROM for anyone that wants to try something different. Although it maintains many of the core UI concepts from Android, much of it looks unlike any of the versions of Android, in fact a plain installation of the ROM has more than a passing resemblance to iOS. Thankfully the ROM takes themes to a whole new level. There are countless themes available, all of which can be downloaded and installed over the air. Some of these are unique; others based on familiar ideas, so if you want your Galaxy to look like an HTC you'll no doubt find a theme for that. MIUI is undoubtedly a beautiful ROM, powerful and feature-rich. But it doesn't feel all that much like Android, and is a lot less forgiving on older devices.

ROM, and there is even a ROM manager-style app, called Kernel Manager that simplifies the procedure even more. The risk is slightly greater when flashing a new kernel than when flashing a ROM, so it's generally not something you should do until you're confident about the entire process.

The other key benefit that you can get from hacking your phone is the addition of new features, and new apps. Often this is quite simple, such as adding newer versions of some of the built-in apps like Google Maps or Gmail without needing to update manually.

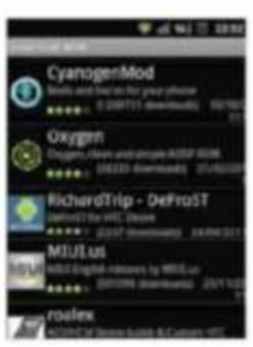
More interesting are the cases where the real power of the smartphone is enhanced. A good recent example is a mod for the HTC One X that doubles the bitrate of the video its camera shoots, enabling you to shoot footage at 20mbps, a significant improvement. Because the mod (which can be found at: **http://bit.ly/KWuk3k**) updates a system app, it needs to be flashed in the same way as you would flash a new ROM, so the usual precautions still apply.

Other mods you might want to try include removing the menubar from the One X (found at: **http://bit.ly/MY4vpl**); adding new features to the Sony Xperia S camera app (**http://bit.ly/JNaYEg**) or even something as basic as adding a comma to the main screen of the Galaxy S II keyboard (**http://bit.ly/KTntvq**). As always check out the xda forum for your phone. There's a Themes and Apps sub-forum for most devices, and a search using the term [MOD] (complete with square brackets) will reveal untold treasures.

Over the course of your device's two-year life span you can mould it into many shapes – add features, upgrade the OS, make it run faster, or slower, or for longer. With the right choice of ROMs and mods the possibilities are almost endless.

Power up your device… Flash a new ROM

When you flash a custom ROM on an Android phone the entire device gets wiped and replaced with the new version you are flashing. When you reboot for the first time it may take a while for the phone to start up, so don't be alarmed and just leave the phone to do what it needs to.



Step 1
Using ROM Manager, scroll down the main menu and select Download ROM. A list of ROMs will appear. Choose a ROM and a list of version releases will be displayed, ready for downloading.

Step 2
The ROM will download followed by a pre-installation menu. Select both Wipe Dalvik Cache and Wipe Data and Cache. Select Backup Existing ROM to save your current setup. The phone will reboot and flash.

Step 3
The flashing process will take a short while to complete (longer if you're backing up as well). Once the new ROM has booted up it may be slow for the first few minutes while the Dalvik Cache is rebuilt on your device.

Time needed: 20 minutes **Difficulty:** Intermediate

How to root your Android phone

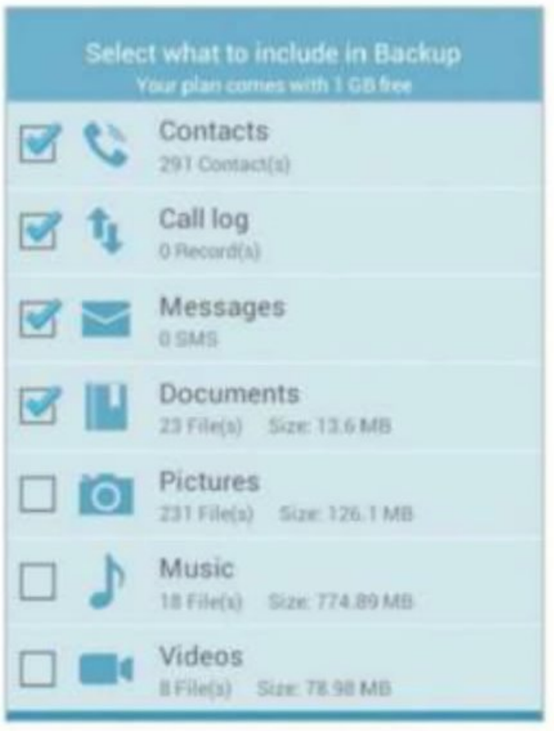
Access a new level of customisation and great upgrades simply by rooting your device

For many users, the versatility offered by Android is more than enough to keep them going. But while Android is great as it is, it's also possible to open a whole new level of customisation by "rooting" a device.

Rooting takes its name from giving the user root permissions to the system files on a handset. With this extra access, all kinds of new tasks and modifications become available that otherwise would not be possible, plus, rooted devices can take advantage of numerous root-only apps. These apps include the ability to take 'snapshot' backups of a device or provide the capability to take screenshots.

By far the biggest advantage of rooting is being able to install custom ROMs to a device. These are user-made versions of Android that can be used to replace the currently installed version of Android. In most cases these custom ROMs are based on newer versions of Android that otherwise would not be available for that particular device. These versions vary in state; some are experimental (generally the ones based on the very latest versions of Android) whilst others have been checked and tested for everyday use.

On the whole, rooting an Android handset isn't too difficult but different devices call for different methods and some may be trickier than others. Here are a few pointers and methods for rooting devices.



1: Back it all up first

It's worth backing up everything on your phone before attempting anything technical such as this. We recommend G Cloud, a free app available from Google Play that comes with 1GB of cloud storage for saving your contacts, text messages and more. Larger files can be saved onto an SD card or computer instead.

6: HTC One X rooting (1)

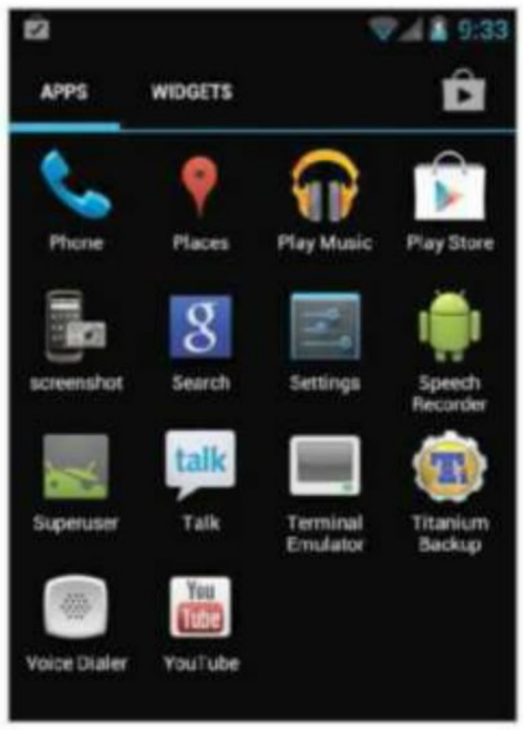
The HTC One X has become the new flagship device for HTC. While rooting it does require a few steps, a tool has been released to help simplify the process. The HTC One X All-In-One toolkit is available at **www.goo.gl/tRrWm**. Just download and unpack it to your desktop, then run the software to get started.

2: Rooting older devices

One of the earliest rooting tools was Unrevoked, a program geared towards older handsets. If you have one of these devices, rooting it and installing a custom ROM can give it a new lease of life. Install the program hosted at **www.unrevoked.com**, then run it and simply follow the prompts to get started.

3: The SuperOneClick method (1)

SuperOneClick (**shortfuse.org**) is a one-click root method that works with many of the newer devices. Press Settings, then Applications, then Development, and switch on USB Debugging. Connect your handset to your desktop, run SuperOneClick and then tap Root.

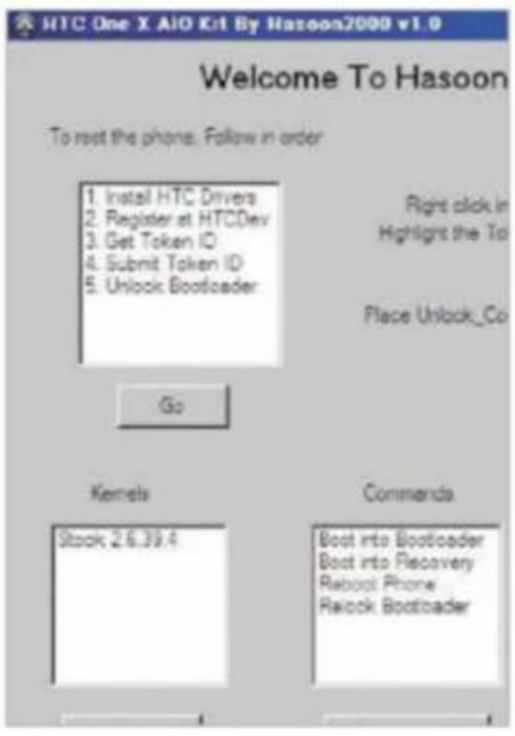


4: The SuperOneClick method (2)

SuperOneClick will run through the rooting process. Once complete, the program will offer to test the root. Select Yes to begin the test. Once it has finished, you can check to see if the Rooting has taken by looking for the Superuser app inside your app drawer.

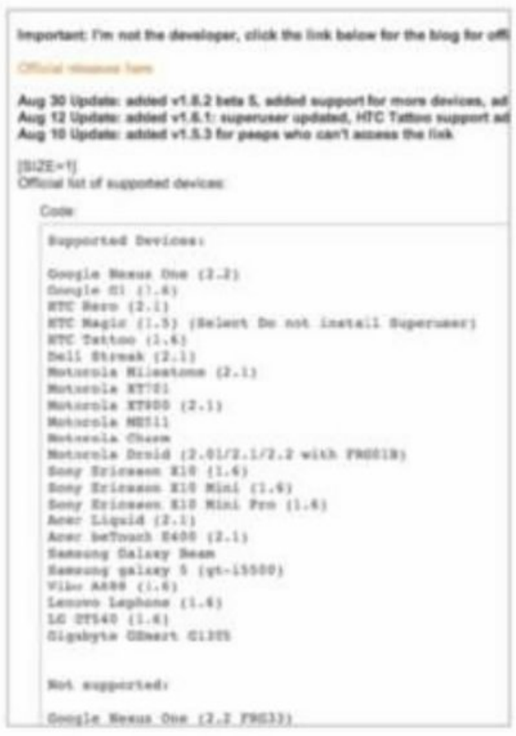
5: Rooting a Nexus

Nexus device owners who are looking to root are catered for with the Nexus Root Toolkit, which provides root access for a number of Nexus devices. Simply download and install the tool, select your device, back it up and then go. Further information on this can be found over at **www.goo.gl/Z9dsT**.



7: HTC One X rooting (2)

It may be necessary to unlock the HTC One X bootloader before rooting your device. Go to HTC's website – **www.htcdev.com/bootloader** – and select 'All Other Supported Models' from the drop-down menu. The site will walk you through the process. After that, go back to the All-In-One tool to root your device.



8: Root without a PC

Depending on your device, it may be possible to root a handset without the need of a desktop computer. Universal Androot is an app that takes the hassle out of rooting older devices. Its simple interface makes it ideal for beginners. A list of compatible devices can be found at **www.goo.gl/Ta5yF**.

9: Unlock Root Tool

Unlock Root is another one-click tool that claims to unlock nearly 250 devices. It is reported to do this by combining hacking exploits from other tools such as SuperOneClick. While it is easy to use, it also insists on installing an additional Power Saver app. The tool is available over at **www.unlockroot.com**.

10: Other devices

Unfortunately, with so many Android devices requiring different methods of rooting, it's not possible to cover every one of them here. For a list of other popular handsets we recommend Lifehacker's Rooting Guide at **www.goo.gl/VDuSO**. You could also try the XDA forums at **http://bit.ly/stTp**.

App used: ROM Manager **Price:** Free **Time needed:** 20 minutes **Difficulty:** Intermediate

Flash a ROM to your phone

Here's how to install a new version of the OS

The main benefit to rooting an Android phone is that it enables you to flash a new ROM. A ROM is installed to the read-only memory part of the phone and contains a version of the Android operating system and any additional apps, such as those that will give you access to the Google Play store.

During the flashing process – flashing is the technical term, but it basically means installing – your phone is wiped clean, including the OS itself, and replaced with something completely new. In most cases restarting your phone after flashing will be similar to when you first turned your phone on when you bought it. You'll be presented with the setup screen and tutorial to create your Wi-Fi connection and login to your Google account. For this reason you also need to back up all your data.

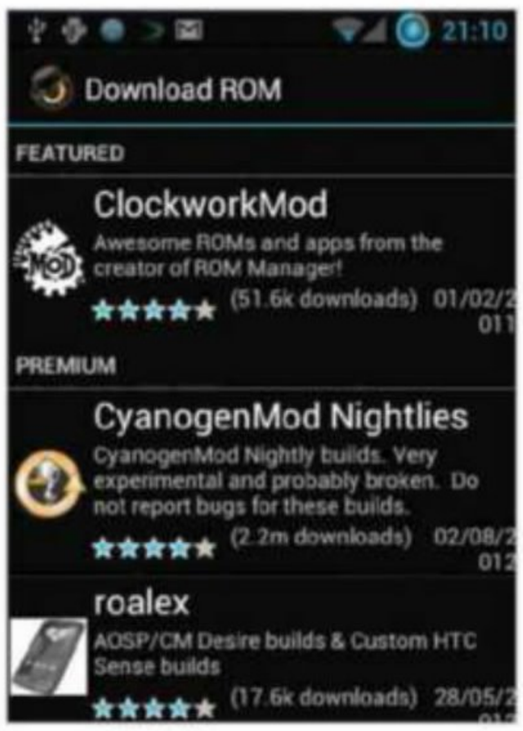
There are several reasons why you would flash a different ROM to your phone. The main one is to update to a newer version of the OS – if your phone has not yet received an official update to Ice Cream Sandwich or Jelly Bean you can flash a ROM based on one of these versions to do it yourself. The other reason is to replace some of the custom software that manufacturers add to their devices. Flashing a ROM is a simple process, but you need to ensure you follow the instructions to the letter.

1: Download ROM Manager

The easiest way for a beginner to flash a new ROM to their device is by using the ROM Manager app, which works on most rooted phones. The app is a free download from the Google Play store, so simply locate, download and install it. It will ask you for root privileges when you run it.

6: Clear data

The Wipe Data and Cache option refers to your own data. If you're flashing a wholly new ROM then you should do this to ensure that you have a clean installation – but make sure that you've backed up all of your data first so you can retrieve it later. If you're upgrading to a new version of the same ROM, then you don't need to do this.



2: Look for ROMs

Scroll down and tap the Download ROM option. You need an internet connection and a list of available ROMs will be displayed. ROMs are rated to help you find the best ones. All the ROMs are compatible with your device, so can be safely downloaded without any problems at all.

3: Download the ROM

Tap on a ROM to download it. It will be saved to your SD card by default and will be several hundred megabytes in size, so should be downloaded over a Wi-Fi connection rather than 3G to prevent huge data usage. You can continue to use your phone while the ROM is downloading in the background.

4: Start installing

Now tap on Install ROM from SD card. You can search through your SD card now to locate the ROM that you have just downloaded, or any others on your card that you might have previously downloaded. Locate your ROM and then simply tap on it to begin the process of flashing it to your device.

5: Create a backup

You will now be asked to customise the ROM installation process. The first choice you will be given is whether or not to create a backup. If you haven't done this already then be sure to tick the box to ensure that you've got something to roll back to if you encounter any problems along the way.

7: Dalvik cache

The Wipe Dalvik Cache option refers to a cache of data that optimises the performance of your apps. As a general rule, you can clear this every time you run through this process. It will minimise problems later and you won't notice too much difference in the device's performance overall.

8: Start flashing

After tapping OK, the ROM will start flashing. Your phone will reboot and then the ROM installation process will commence. It'll take up to about ten minutes or so, and the first boot after this installation might take longer than you would normally expect as well, so don't panic if it takes a while.

9: Finding other ROMs

ROM Manager has a limited number of ROMs for your phone, but there are others that you can find online. Head over to the forums at **www.xda-developers.com** to find the latest new ROMs for your device and a wealth of information. Download ROMs to your card and then install them through ROM Manager.

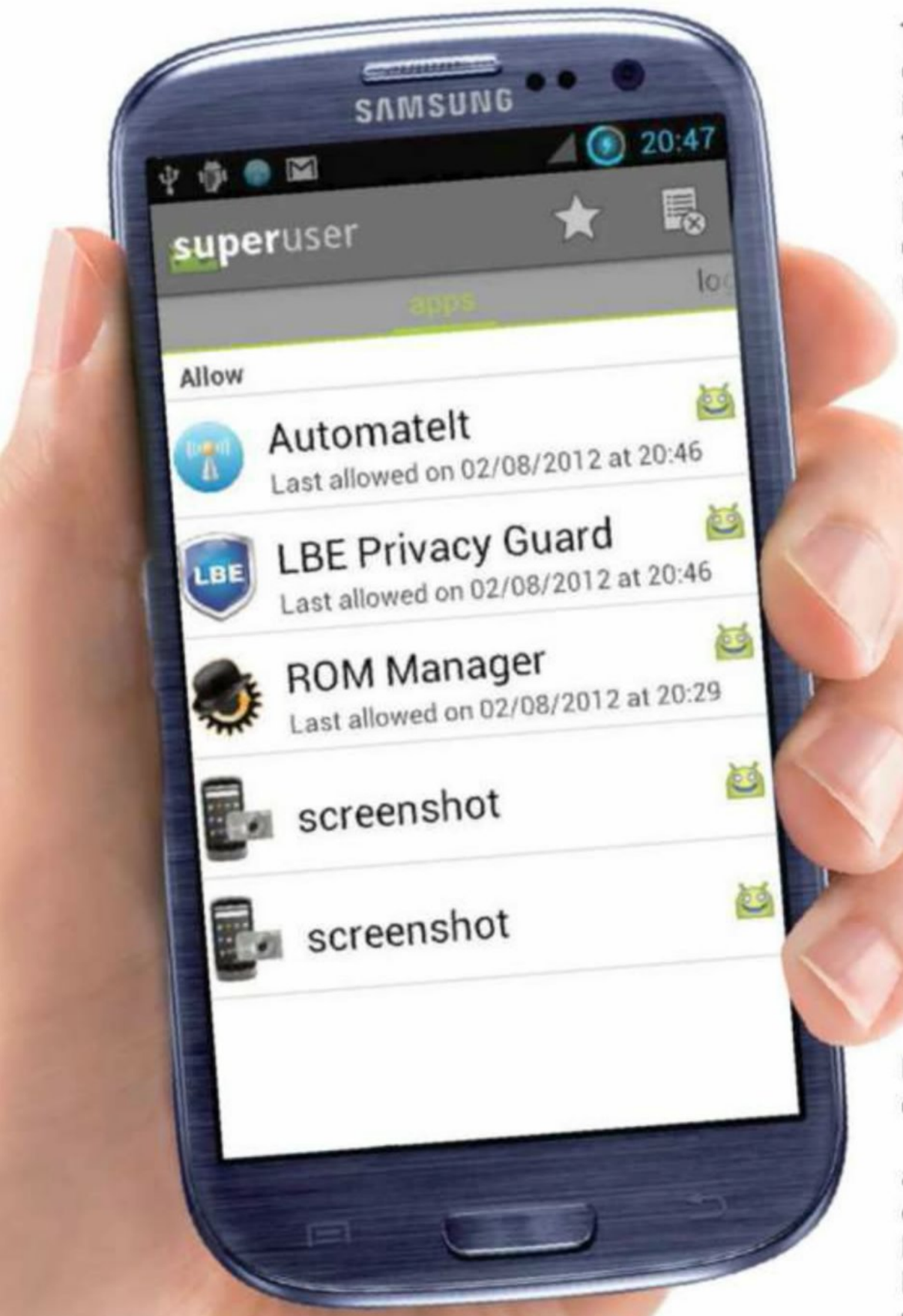
10: Store ROMs

ROMs are stored on your SD card and you can keep as many as you like on there, enabling you to switch and test as many as you need until you find the right one for you. See also our guide to customising ROMs on pages 124-125. Don't try and flash a ROM intended for a different device to your phone, though.

App used: Superuser **Price:** Free **Time needed:** 15 minutes **Difficulty:** Intermediate

Give root access to your apps

Find out how to give apps special permissions using the Superuser app

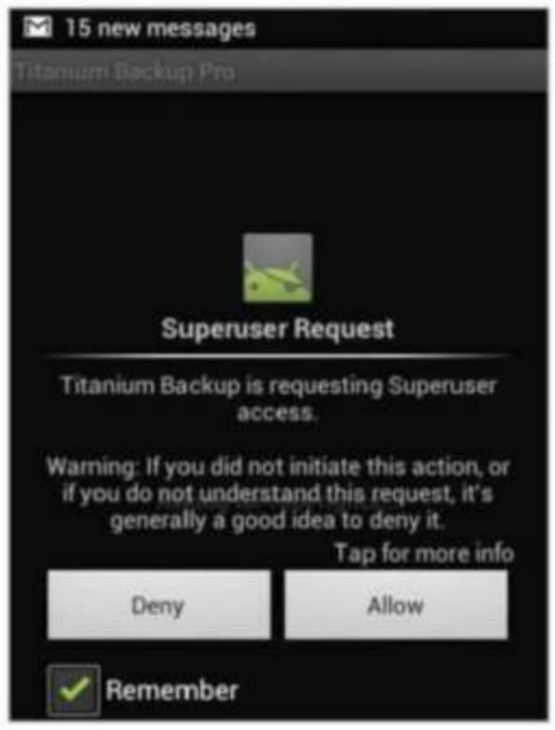


The process of rooting is designed to give apps you install on your phone the ability to do things they otherwise wouldn't. Rooting means to have root access to system files. On a typical Android installation, neither the user or any apps can access the core files in the OS. You can't change or delete the files that are vital in the functioning of the OS, and neither can any apps. This is largely a security issue. Files and functions locked away in a non-rooted device do not serve any real purpose to the user, and making changes to these without knowing what you are doing can leave a device with problems, or even make it stop working altogether. As a result the OS simply prevents them from being accessed at all. As for apps, they also cannot access these parts of the system to ensure that badly written, or malicious, apps don't do any damage.

When you root your phone, all these parts of the system are opened up, but they do not become automatically accessible by every app you've got on your phone, so you still have protection against damage. This comes in the form of the Superuser app that gets installed when you root. Every time an app needs root privileges, it prompts you to give permission, either permanently or on a one-off basis. Here we show you how.

1: The Superuser app

When you rooted your phone, the Superuser app will have been installed as part of the process. You can locate this alongside all your other apps in the apps panel. If it's not there, however, then you will need to go back and redo the root process to ensure that it's installed properly (see pages 118-119 for a full guide to this).



6: Deny permission

Alternatively, you can deny permission by tapping on the Deny button. Note that if you do this, the app in question will almost certainly exit and definitely won't work to its full capacity if it doesn't exit. As a general rule, though, you should only grant permission to apps that you're expecting to need specific root privileges.

2: Inside the app

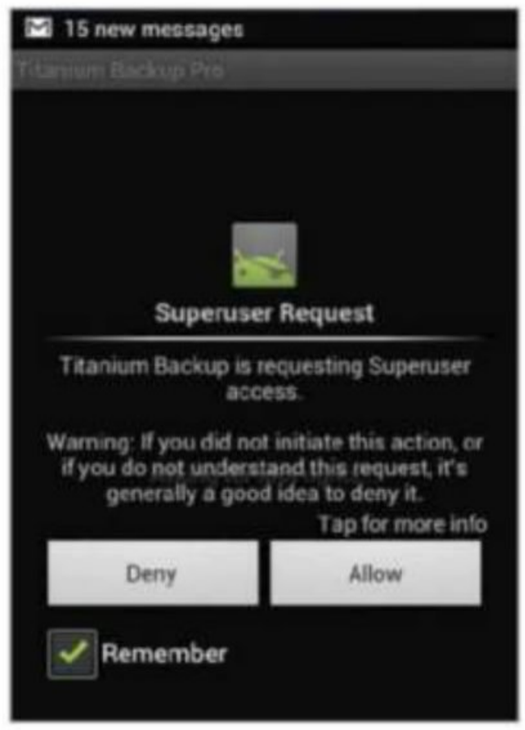
Once you've found it, open up the Superuser app. The first screen that you will see lists all of the apps on your phone that have requested root privileges. If you are a prolific user of rooted apps, then it's definitely worth keeping an eye on this screen from time to time, just to be safe on the safe side.

3: View the log

Swipe to the right and you will then see the Log screen. This lists all of the activity from rooted apps that are running on your phone and shows you exactly when they asked for permission. You won't need to use this very often, but it can alert you to any rogue apps that you may want to remove.

4: Open an app

Now open up an app that requires root privileges. You will know which ones to choose from, as they should be clearly marked in the Google Play store when you download them. Some apps, like launchers or file explorers, have extra functions that need root privileges in order to work properly.



5: Grant permission

When the app launches, a screen will pop up alerting you to the fact that the app needs root privileges to do its job. Tap on the Allow button to allow the request, and then tick the Remember box so that you aren't prompted to give permission again the next time you run the app.

7: Use your app

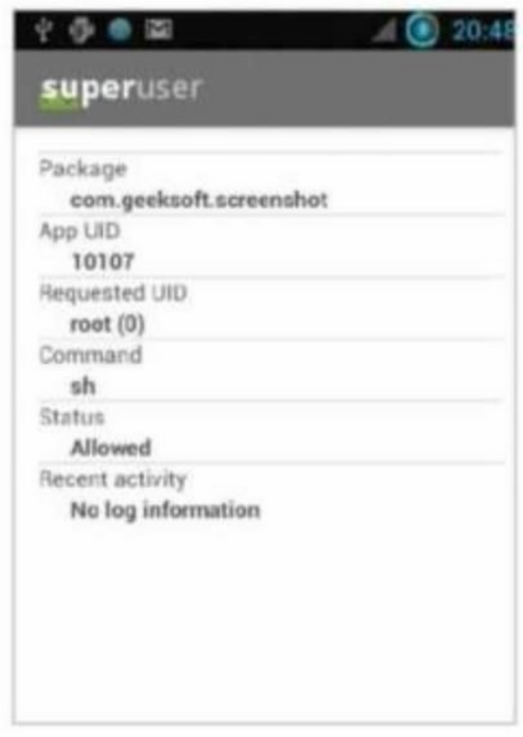
Once you have granted it permission, you can then use the app as you intended. Apps such as Titanium Backup will require root access in order to fully back up your apps and data. If you want to restore that data to a different device, e.g. your new phone, then that device will also need to be rooted.

8: Manage the apps

To manage your root apps, go back into Superuser. You'll see that the apps screen is now populated with root apps. Tap on any one of them to bring up more information about the app. You'll be able to see what it has been doing recently and you will also be able to further tweak the permissions you've granted.

9: Toggle permission

Select an app to view the information about it. At the bottom of the screen you'll see a row of icons. The first one on the left, a split Android, enables you to toggle root permissions on and off. Simply tap on it to change the setting, but remember that you'll need to change it back afterwards.



10: Delete the app

Next to the Android icon is the Delete icon. By tapping this button you will remove the selected app from the Superuser list, which will also reset your selections in the process. The next time you launch the app then you will see the permissions prompts once again and can choose to allow or deny them.

Time needed: 25 minutes Difficulty: Intermediate

Add or remove apps from a custom ROM

We show you how to customise your favourite ROM before you flash it onto your Android device

"If you have the know-how then you can change pretty much anything in a ROM and make it truly unique"

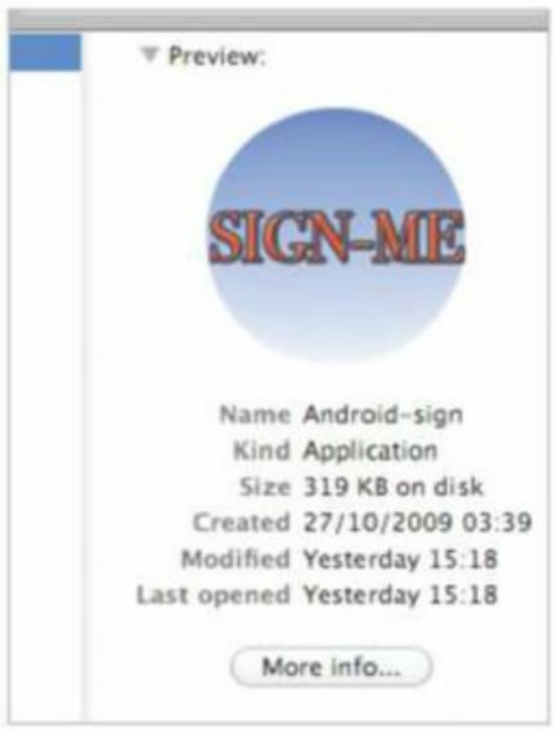
The number and variety of custom ROMs available for the best-selling Android phones is immense. In most cases there are a few ROMs that are the most polished and, as a result, the most popular, and these so often form the basis of smaller ROMs that are designed by developers to meet their own particular requirements. As a result you can find a ROM to suit pretty much any need that you may have.

Yet sometimes this might not be the case. Maybe you want your ROM to be as stripped back as possible, or maybe you want to build it around specific functions. Or if your phone is not as well served for custom ROMs as the most popular devices you might simply find your options are limited to begin with. In all these cases you may well want to modify the ROM yourself before you flash it to your handset.

If you have the know-how then you can change pretty much anything in a ROM and make it truly unique to yourself. If you're new to the process the best first step you can take is to add or remove apps from the ROM, changing what will be installed by default. If you don't use Facebook, for example, you might want to remove the app from the ROM, or perhaps there's a different image viewer you'd prefer to use – instead of installing it alongside the standard viewer you could tweak the ROM to replace it altogether. Here see how to tailor a ROM to your needs.

1: Download a ROM

As you may have guessed, first you need to pick the ROM you want to use. You can find plenty at the **xda-developers.com** website, or you can go direct to the site for a ROM maker. You'll need to download it to your desktop, which is where you'll perform the customisation. ROMs are in the ZIP format so ensure that you can open them.

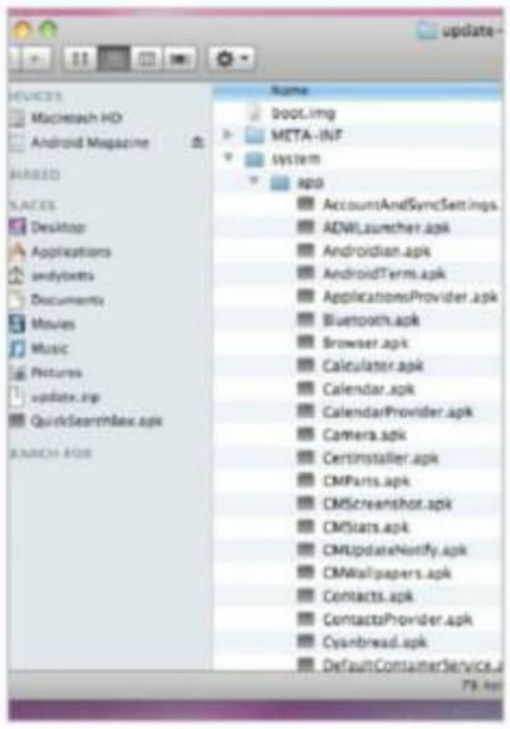


6: Sign the ROM

If you intend to distribute the ROM to other users then you should sign it for security purposes. There's an app called Auto-Sign for both PC and Mac (although a different version for each) that will help you do this. If you're using the ROM just for yourself then you might be able to skip this step, depending on the ROM you have chosen.

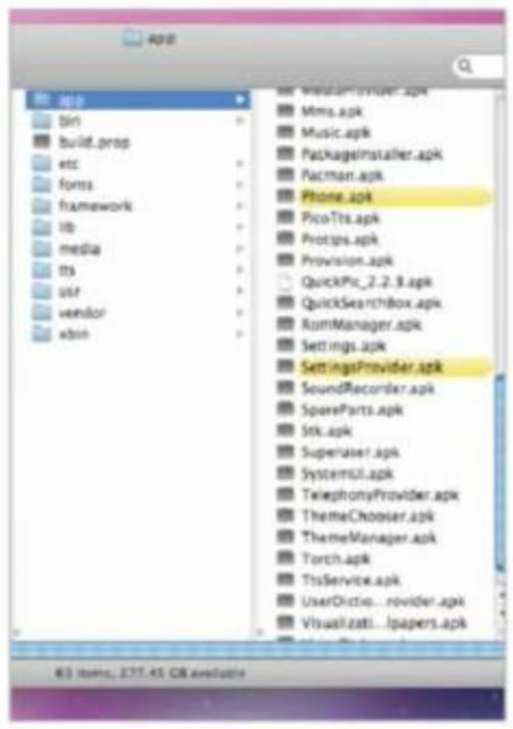
2: Unzip the ROM

Once your ROM is downloaded to your desktop you can extract it. Windows and Mac both include apps that will do this by default, and will put the extracted files into their own folder. Once it has finished, open this folder in order to start browsing through the contents of the ROM.



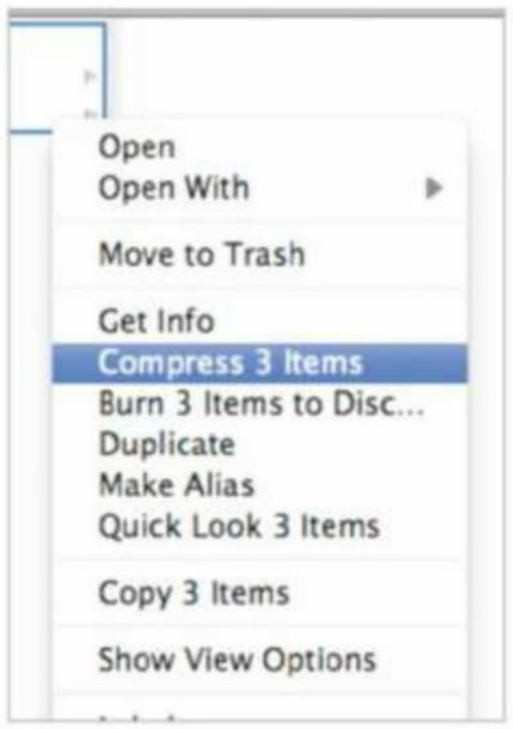
3: Locate the app folder

The folder structure will differ from one ROM to the next, although the core contents will be essentially the same. Locate the system folder then, inside that, open the folder called app. Here you will find all the applications that are pre-installed as part of the ROM.



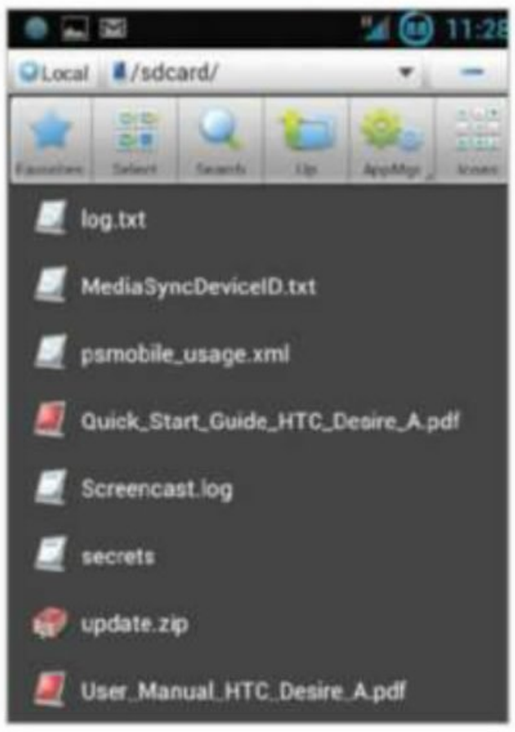
4: Remove apps

You can now delete apps you don't want, or add new ones (which come with the APK extension). Only remove apps that you are sure are safe: removing SoundRecorder.apk, for example, will erase the sound recording app, but deleting Phone.apk will mean that you can't make any phone calls.



5: Zip up the folder

You can also go into the Media folder to add and remove ringtones and other sounds to reduce the size of the ROM further before flashing it. When you're done, rezip the contents of the ROM folder (but not the entire folder itself) as 'boot.img', ensuring the META-INF and system folders are at the root.



7: Copy ROM to device

The next step is to copy the newly tweaked ROM onto your device. If you rename the file to 'update.zip' then it will be much easier to find when flashing, although if you use multiple ROMs then you may want to keep them clearly named so that you'll be able to find and use them again in future.

8: Turn signature verification off

It's time to flash the ROM in the same manner you usually would. Ensure you've backed up, then boot into Recovery (usually by holding the volume down and power buttons). Go to Install zip from SD card and select Toggle signature verification (if your ROM is unsigned).

9: Flash the ROM

Let's wrap up the flash. If you renamed the ROM update.zip, simply select apply sdcard: update.zip. Otherwise go to Choose zip and find it from the list that opens. You need to scroll down seven times before you can confirm that you want to install the ROM. Do this to start the process.

10: Test the ROM

The ROM will now flash and your phone will reboot. Test the ROM to ensure your apps have been successfully removed and any new ones added – not all apps can be added in this way, so you may be prompted to reinstall them. Revert to your backup from step 8 should any problems arise during the flash.

App used: Titanium Backup Pro **Price:** £4.49/$6.58 **Time needed:** 20 minutes **Difficulty:** Intermediate

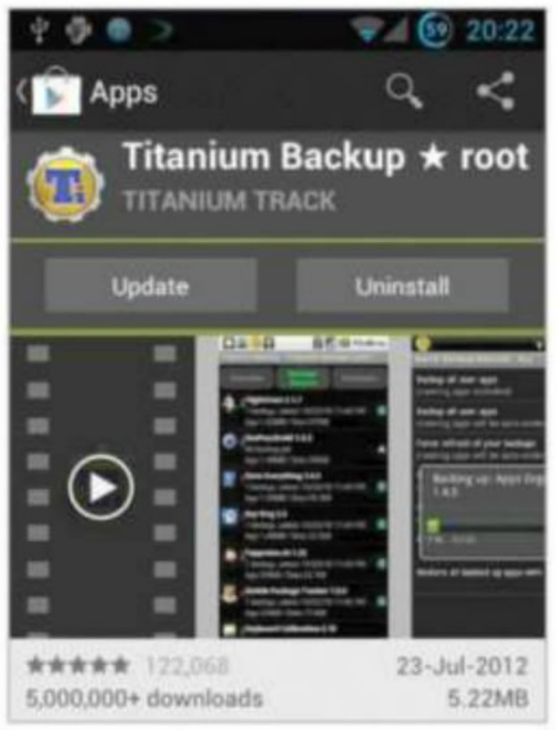
Back up your apps

Keep your apps fully backed up on your SD card

The Google Play store does a pretty good job of managing your app downloads. Everything you ever download or buy is tied to your Google account, so if you ever need to reset your phone – or when you upgrade to a new one – you can reinstall them all quite easily.

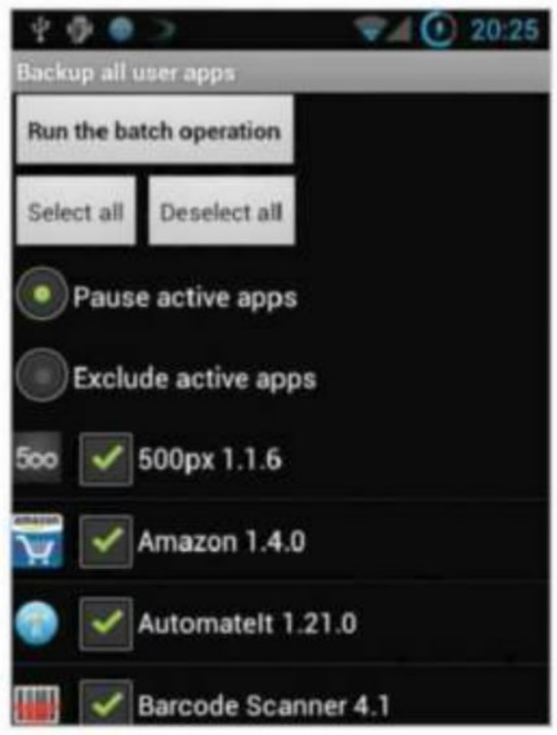
However, there are still times when you might want to back up your apps to an SD card. The most obvious one is that not every app will be downloaded through the Google Play store. This is particularly the case if you're into hacking and modding your phone, wherein a number of utilities you use may be downloaded from forums rather than official app stores. Backing up these apps will enable you to reinstall them again in the future without needing to track them down. Also, apps in the Google Play store get updated regularly, but not always in a positive way. Some new versions can see bugs being introduced, which renders them unusable until they're updated again. Occasionally apps will receive a complete redesign that you simply don't like as much as the previous version. With a backed-up copy you can roll back to the older version.

Backed-up apps will be stored on the SD card. Many larger apps will offer the ability to be installed directly to the card as well, although this shouldn't be confused with a backup, as you won't be able to use it to reinstall all over again.



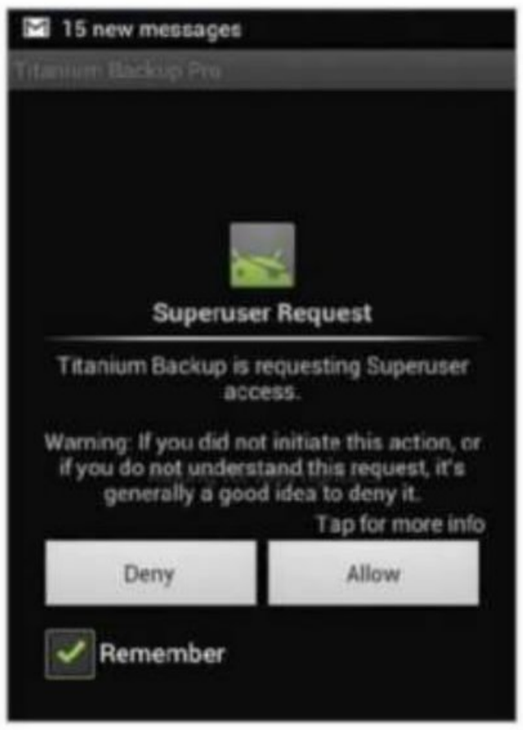
1: Titanium Backup

To back up your apps the best option is to download the Titanium Backup app from the Google Play store. There is a free version of the app but the inexpensive Pro version is well worth investing in, as it adds a whole host of functions to the free version and will become one of your most-used apps. We use the Pro app in this tutorial.



6: User apps

Choose the Backup all user apps option. The number next to this setting will show you how many apps you've got installed that need backing up. Just tap on Run to get started – the process takes quite a while but it does run in the background, so you are able to continue using your device as normal if you want to.



2: Allow root access

Titanium Backup will require root privileges to be able to do its job properly (see pages 122-123 for more on privileges). You'll be prompted to allow this when you first launch the app, so tap the Allow button and ensure the Remember box is ticked so you don't have to repeat the process the next time you run the app.

3: Backup and restore

Once the app has launched, tap on the Backup/Restore tab at the top of the screen. This will then show you all of the apps on your phone, both the system and the third-party apps. It also displays which apps have been backed up, which haven't, and which can't be, which is handy for selective app backups.

4: View the apps

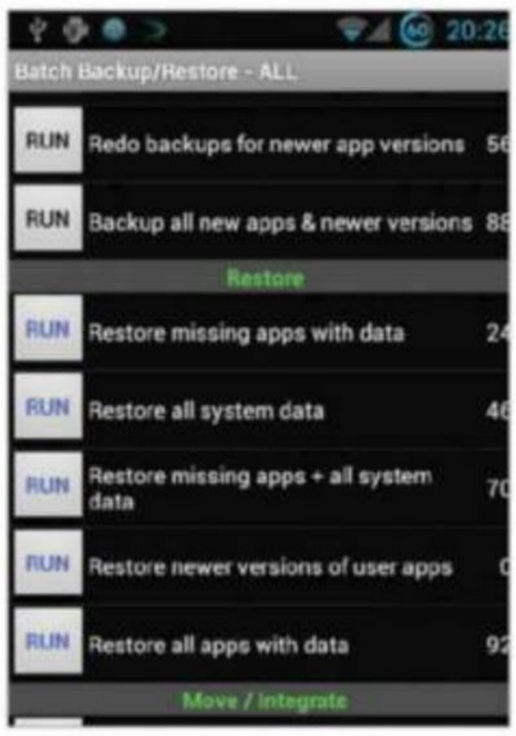
Tap on any individual app in this list to view basic information about it as well as some admin tasks you can perform. You can launch the app, uninstall it, wipe its data or freeze it from this screen – you can have a quick glance at step 10 to find out what a useful function the freeze option is.

5: Batch processes

Now press the Menu button on your phone and choose the Batch option. This will show you the full set of backup tasks that you can perform on your phone or tablet and its apps. There's a wide set of options, many of which are self-explanatory in what they do. Just have a read through them to find out.

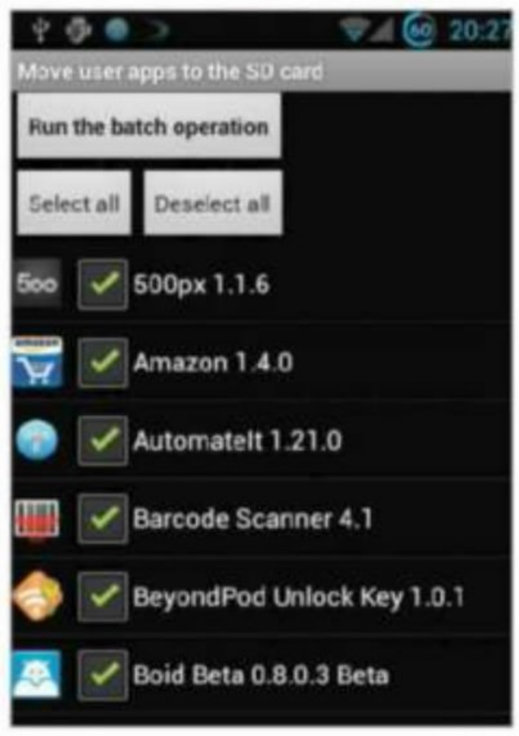
7: Check progress

While backing up in the background you can check on Titanium Backup's progress in the Notifications panel. Just drag down from the top of the screen to pull the panel down, and you'll be able to see how many apps have been successfully backed up and how many more there are left to go.



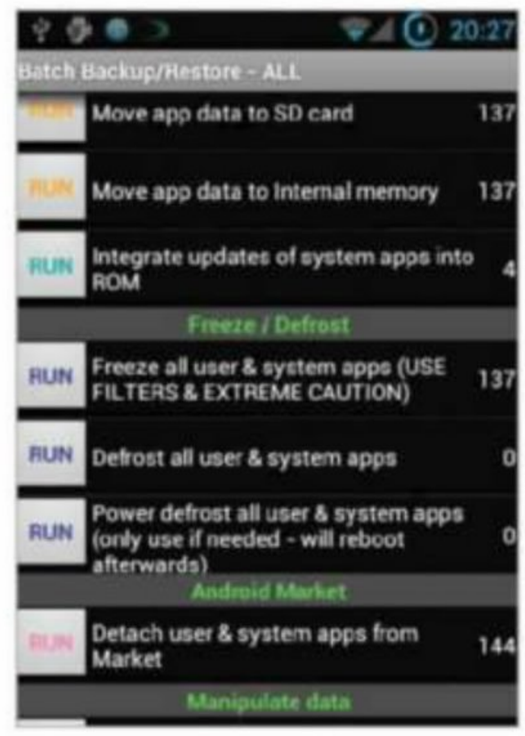
8: Restore options

The restoration process happens in the same way. Simply choose the appropriate option – either restore missing apps to bring back those that you've backed up but aren't already installed on your device, or restore newer versions of apps to overwrite the older versions that you already have installed.



9: Move apps to SD

Further down the Batch list you will find an option to Move user apps to the SD card, which is a handy way of saving space. The number of compatible apps is listed to the right – not all apps can be moved to the SD card. Tap Run and then deselect any apps that you wish to leave in system storage.



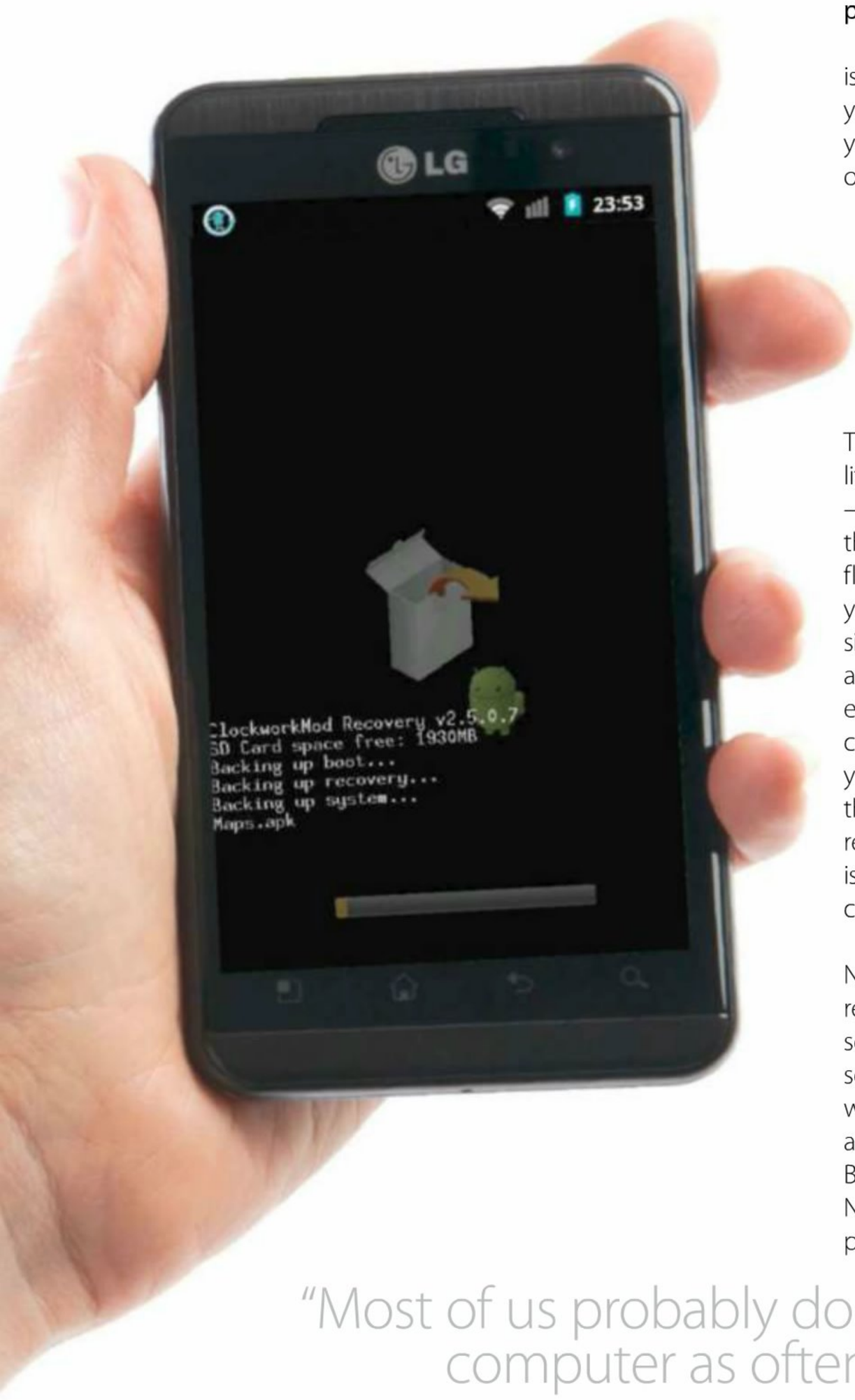
10: Freeze

The final option is to freeze apps. This is essentially an easy way to remove pre-installed apps. Just locate the app you want to remove, tap on it and then hit the Freeze button. The app won't be uninstalled when you do this, but it won't run either and it will be hidden from your app panel.

App used: ROM Manager **Price:** Free **Time needed:** 15 minutes **Difficulty:** Intermediate

Back up your ROM with ROM Manager

Create a full backup before your hack your phone



Backing up any computer is a pain, and most of us don't bother doing it as often as we probably should.

The one time that backing up is simply non-negotiable is when you are flashing a new ROM to your phone or installing any other hacks.

Flashing is usually a painless process, but it can go wrong for a variety of reasons. If it does, the simplest way to recover the phone and get started again is to restore what is called a Nandroid backup. This is a complete snapshot of literally everything on your phone – the OS, the apps, the data, the settings. If for some reason flashing a different ROM leaves your phone unable to boot, simply restore a Nandroid backup and your phone will revert to the exact state it was in when you created that backup. Similarly, if you flash a ROM to test it out and then find that you don't like it, restoring that Nandroid backup is the easiest way to undo the changes you've made.

It should be noted that a Nandroid backup can only be restored in full. You cannot selectively restore apps or data, so if you want to do this you will need to use an alternative app such as Titanium Backup. But don't do this instead of the Nandroid, which is an essential part of any hacking process.

"Most of us probably don't back up our computer as often as we should"

1: Open ROM Manager

We're going to be using the ROM Manager app for this tutorial. It's a free download available from the Google Play store and is, importantly, compatible with most rooted phones. Find, download and then open up the app, and you will immediately see that it is laid out in a pretty intuitive manner that reflects your workflow.

6: Go to backup

Work your way through the menu system until you get to the backup and restore menu. You will need to use the volume keys to navigate up and down the options and either the home button or the power button to confirm your selection, as ClockworkMod Recovery is not normally touch-enabled. Select Restore to continue.

2: Go to Backup

Scroll down to the the Backup and restore section to find the Backup Current ROM option. Choose this to continue to the next step, but also note that, should you ever need to, you can restore any of your old backups from the Manage and restore backups option which sits just above it.

3: Create the backup

After selecting Backup current ROM, you will be prompted to enter a name for your backup. By default, it will be named by date and time, and this is a good way of making sure you know what your most recent backup is. You can change the name if you prefer, but make sure it's clear enough for you to recognise.

4: Begin

Upon tapping 'OK', the backup process will begin. Your phone will first shut down and then boot into recovery mode while the backup takes place. The whole process can take a good five or ten minutes to complete, and it's best not to touch the phone while this is happening to avoid complications.

5: Restoring a backup

If you need to restore a backup, you can do so either from ROM Manager or, if your phone won't boot after flashing a ROM, from recovery mode instead. For the purposes of this tutorial, boot into recovery now – you might find you need to check online to find the key combination for your handset.

7: Choose a backup

You will see a list of all of your backups, with the same names that you assigned to them in ROM Manager. Choose the backup that you wish to restore your phone to – in most cases this will be the most recent one that you made, which is why naming them by date and time is a good idea.

8: Confirm your choice

After selecting which of your backups you want to restore, you will need to scroll down multiple times before you can confirm that you wish to go ahead. This is to ensure that you don't restore the wrong backup by accident. Again, don't interrupt your device (by using it) until the process has finished.

9: Advanced options

While in Recovery, there is an Advanced option in the Restore settings. This will enable you to restore just certain parts of a ROM, such as the system or data. This is mostly intended for advanced users so is best left alone unless you have specific needs, such as a particular function you wish to roll back.

10: Manual backups

You can also create backups manually while in recovery mode. Simply choose the Backup option instead of the Restore option, and then just follow the prompts to complete the procedure. It is essentially the same one as in ROM Manager, only with a slightly less user-friendly interface.

App used: Android Overclock **Price:** £1.50/$1.99 **Time needed:** 20 minutes **Difficulty:** Expert

Overclock your Android device and speed it up

Achieve higher benchmarks by giving your phone a boost – but be wary of wearing out your battery

"By overclocking your phone, you can speed things up and get it to work at its optimum speed"

Not everything about your Android phone will please you. You may find it too slow, for instance. By overclocking your phone, you can speed things up and get it to work at its optimum speed. Furthermore, while this can play havoc with your battery life, it can make your Android a far better and more comfortable device to play with.

In order to overclock, you will have to gain root access to your phone (a process that we cover over on pages 118-119). You can coax your phone to some pretty nice speeds and it's very similar to the process of overclocking the CPU in your computer. However, the process is not without its problems: there is a possibility you could brick your phone, so tread carefully.

You really do need to exercise caution too, because you can expose your phone to excess heat, which is never a good thing. The same can happen with a computer, but the difference is that you can put a heatsink or fan on a desktop computer. You can't do that on a phone.

It is true that a lot of new phones are already close to their operational limit. That said, it's still worth trying out Android Overclock, the app that we are using in this tutorial. It costs just £1.50 ($1.99) and will certainly make your life a whole lot easier. You can set up profiles so that you don't have to carefully monitor your settings to ensure the battery life and temperature isn't being adversely affected.

1: Download Android Overclock

Android Overclock is available from Google Play and it's a brilliant way to quickly manage your phone's CPU usage. When you first launch the app, it will request Superuser access (which you get by rooting your device). Allow this and you will then be able to delve deep into your phone and start to overclock it.

6: Start profiles

Press the Menu button on your phone and the tap tjhe Profiles option to begin making a profile. Android Overclock will let you make profiles that, for example, turn down the clock speed when the battery is below a certain percentage and then raise it back up again whenever it's plugged in and recharging.

2: Choose an option

After a brief loading screen, you will be taken to the main menu. Some phones cannot access the full breadth of options available and Android Overclock will tell you if you are affected by this. Otherwise, select the CPU Frequency Setting and then you can start to play around with your phone's performance.

3: Start to overclock

You will see two sliders. The first is the maximum frequency your CPU will operate at and the second is the minimum frequency. When increasing the maximum, do it in increments. If you increase it in massive chunks then you risk your phone becoming unstable. Move the slider with your finger.

4: Reboot your device

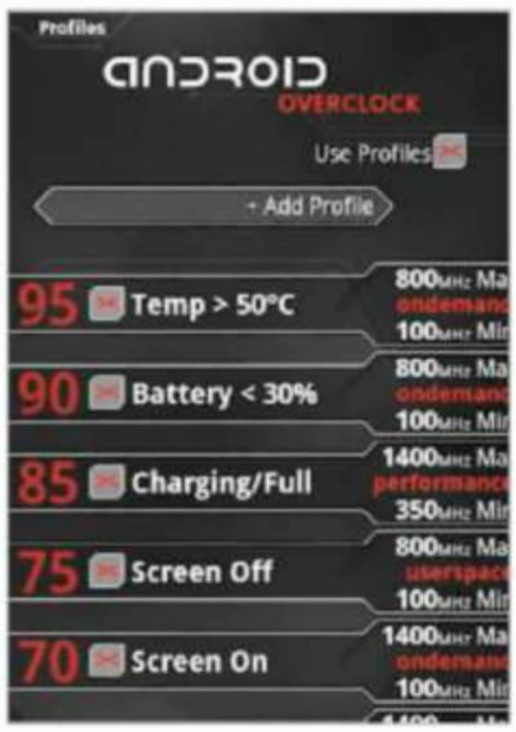
When have finished tweaking the slider, your phone will need to be rebooted in order for the settings to take effect. Once you've done that, check your phone to ensure that it is stable and, if you feel it is, then load up the app again and push it a bit higher. You are looking for the optimum level.

5: See the information

You can find out more information about your phone's performance by using the slider denoted by the arrow at the right edge of the screen. Slide this across to reveal the panel and you will then see your maximum frequency and the temperature of the phone. This will show your device's state.

7: Profile creation

Tap the option next to the Condition and then choose whether or not you want to be notified in the status bar. You can then set a temperature, for example, and work out the maximum frequency when it reaches a certain level of heat. You can also define a priority level on this screen.

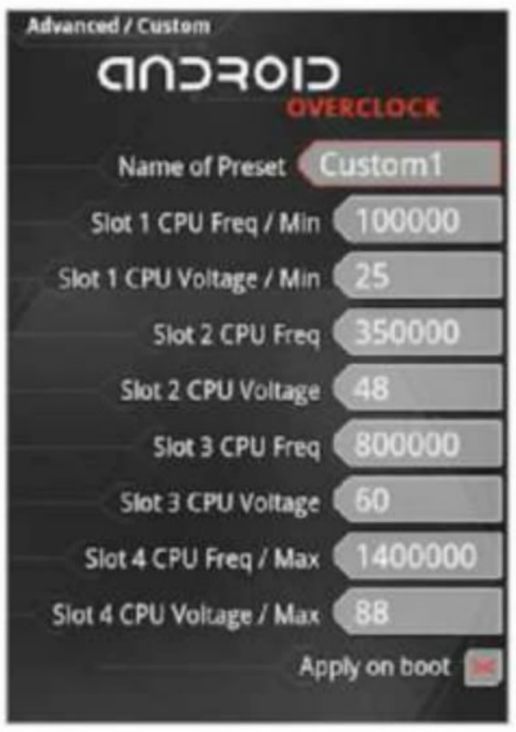


8: Multiple profiles

You can be as elaborate and as specific as you wish with your profiles. You will see them all in a long list that looks at the state of the battery, temperature, screen and charging. This means that you can exert control over your phone without having to go into the app and adjust it manually each time.

9: Performance level

Another handy feature of Android Overclock is that you don't need to keep opening the app. If you select to show the status on your home screen, you can view the state of your phone whenever you switch it on. The app then gives you full details of the performance and the status of the battery life.



10: Exceptions

If you are using a Droid X, Droid 2, Original Droid, Milestone, Milestone2, Flipout, Galaxy Beam, Galaxy A, Archos A70 Tablet or Archos A101 Tablet, then you can use an overclocking module within the app. Other devices can flash custom kernels to overclock. It takes time to get used to the app, but it's worth it.

App used: Power Manager Full **Price:** £0.61/$0.99 **Time needed:** 15 minutes **Difficulty:** Intermediate

Extend your Android device's battery life

Use a simple app to tweak your Android device and help prevent needless battery drain

"You can set up profiles which dim the screen, for example, when the battery reaches a certain level"

There is nothing more frustrating than being out and about with a phone that is about to die because the battery levels are so low. Maybe it's beeping at you, maybe the next call will be the one to tip it over the edge into darkness. You know that it could go at any point and you are nowhere near a charger, so what do you do?

Well, if you have the right app on your phone (or tablet), then you can begin to manage your handset and eke out as much power as you can before you get to a charge point. This can be as simple as turning off Wi-Fi or dimming the screen. Both of these things help to conserve energy and keep that irritating problem of worrying about a dying phone at bay.

The apps make this a simple process (we are using Power Manager Full). They allow you to turn items on or off with a simple tap of the screen. But the key is to keep your Android device going for as long as possible and to do this requires a few tricks such as setting up profiles which dim the screen, for example, when the battery reaches a certain level or getting the phone to turn off certain features at various points.

And by regularly monitoring the health of your battery, you are in a better position to work out if there is something inherently wrong with the device. There really is no need not to have something like this on your phone. After all, power comes to those with these apps.

1: Download the app

For this tutorial we are using the inexpensive yet comprehensive app, Power Manager Full by X-Phone Software. This incredibly useful little app allows you to set up profiles and toggle attributes to sort your battery life out on the fly. Tap Battery Powered, for example, to dim the screen a little and save your device some power.

6: Add a profile

If you want to automate the process of your battery use, you can create your own bespoke profiles. Click the Menu button on your phone and then select Profile. Give your profile a name and then add a short description of it (it pays to be clear when doing this so that you can be sure to select the right profile). Press Next to go to the second stage.

2: Going through the options

There are many options available to you here at this stage. If you have a low battery, you can tell the app to dim the screen and turn off Wi-Fi and bluetooth. This way you can conserve what little energy you may have left until you are able to charge your phone again.

3: The Menu button

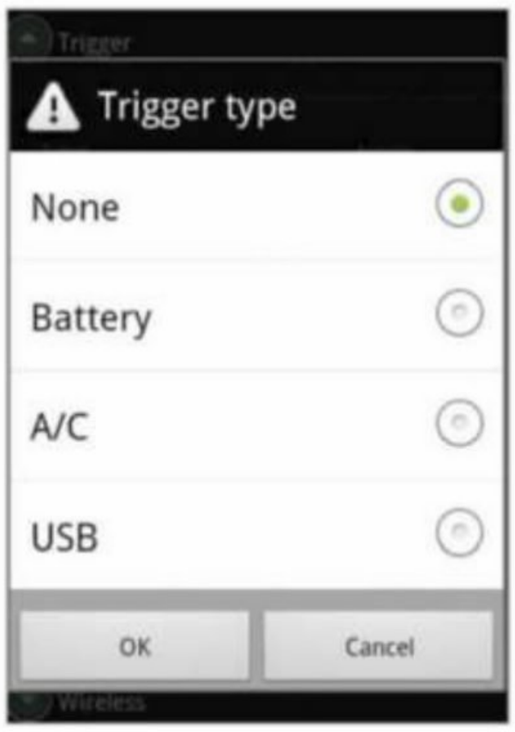
As well as the options available to you on the home screen, you can also press the menu button, which will allow you to view any updates, get any help you need and select a variety of information to ensure you are more efficient in your use of the app. If it's your first time with it, it's good to get used to it here.

4: Check your battery information

The menu button allows you to select your battery's information. You can see the status and see how much juice it has. You can also check the battery's temperature and its health, in case there are any underlying issues that may affect the performance of your device.

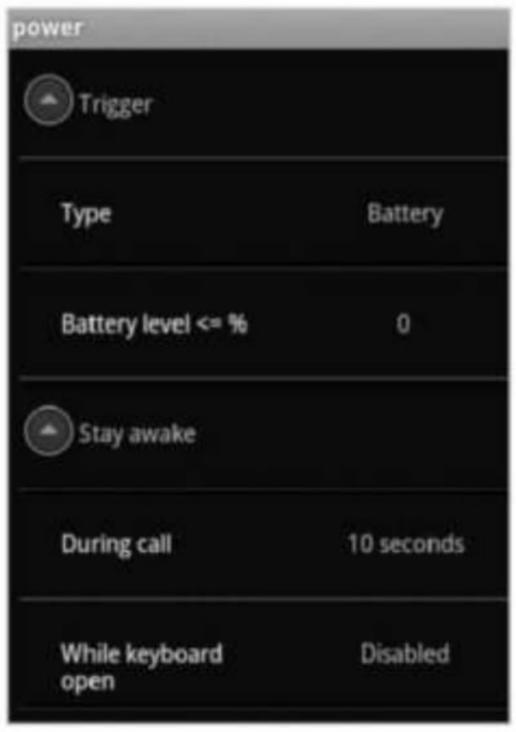
5: Revert to original settings

If you wish to revert to the original settings, go to the main page and select Initial Settings. This will get the phone back to normal. It's also a good way of getting out of any confusing states. The top of the screen displays a handy guide to what is turned on or off in the app.



7: Creating the profile options

You will see a long list of options, with Trigger right at the top. Tap this now. You want to tell the app which element will trigger your profile – i.e. what will have to happen in order for your profile to be activated, based on whether the battery, A/C or USB is being used at the time.



8: Setting levels

Now decide at what percentage you want your battery to be in order for the profile to be activated, if you have chosen this in the previous step, and then move on to the next option. You can, for example, opt to keep the phone awake during a call or when the keyboard is open – the choice is entirely yours.

9: Toggle brightness

You can also change the brightness of the screen, or instruct the app to make the brightness a certain level depending on whether or not the battery is at a certain percentage or if it is plugged in and charging. Keeping the brightness low will definitely improve your battery life.

10: More options

There are many other useful options for you to explore in this list. You can, for example, change the Wi-Fi state and you can choose the location. You can tell the app what to do when syncing data. In short, you can control all the aspects of your battery life and ensure that it stays active for much longer.

App used: DSPManager **Price:** Free **Time needed:** 20 minutes **Difficulty:** Intermediate

Improve your smartphone's sound quality

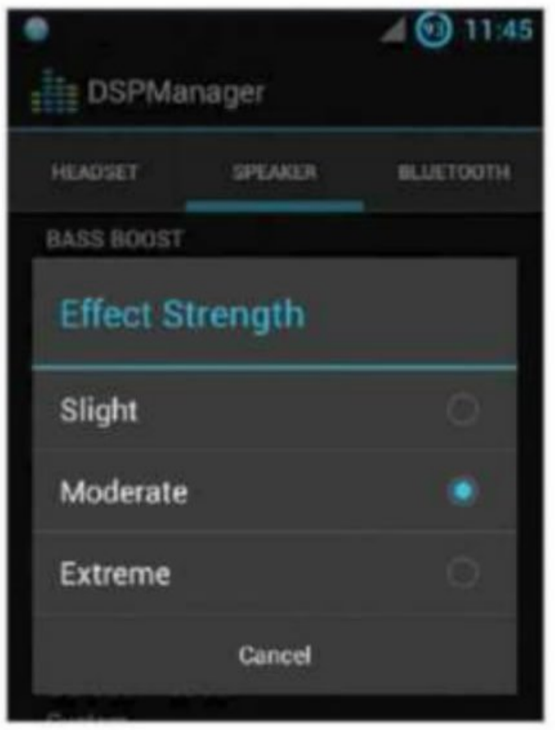
DSPManager is an app that comes with CyanogenMod and lets you create stunning audio quality

Music on Android phones is big business. Every major manufacturer preloads some kind of music store or streaming service onto its new devices, and they all make a point of highlighting the superior audio quality of their handsets. HTC even paid $300 million for its Beats Audio tie-up for precisely this reason.

Now you can get great sound for free. The CyanogenMod ROM, which is available for most major Android phones and tablets, includes an app called DSPManager. This powerful equaliser app enables you to tweak and adjust the sound quality from your phone, and to configure it separately for your phone's speakers, headphones and even a Bluetooth headset.

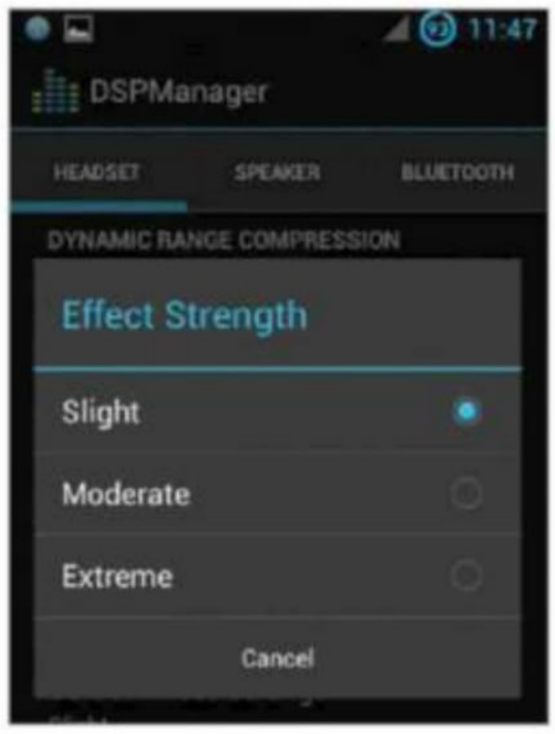
It's pretty easy to use and is capable of delivering fantastic results. With a little time and experimentation you can squeeze every last ounce of capability from your phone's sound system, and get the kind of quality expected from the big brands.

In this tutorial we take a look at the latest version of DSPManager within CyanogenMod 9. It's available as a flashable zip for a few devices even when you don't want to use CM9 as a whole – simply flash it using ROM Manager in exactly the same way as you would when flashing an entire ROM. Previous versions of CyanogenMod also include DSPManager and, while they may look different, most of the concepts are the same.



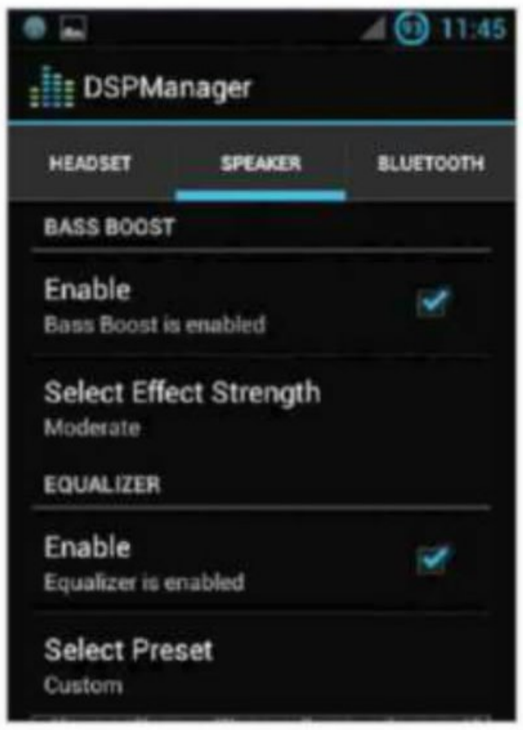
1: Ace of bass

Open the DSPManager app (which will be listed in your device's Apps panel if you've got CyanogenMod installed). It will open on Speaker. Tap Enable Bass Boost and then choose an Effect Strength. This artificially enhances the bass output but does show the limitations of the speaker – going too high will result in distortion.



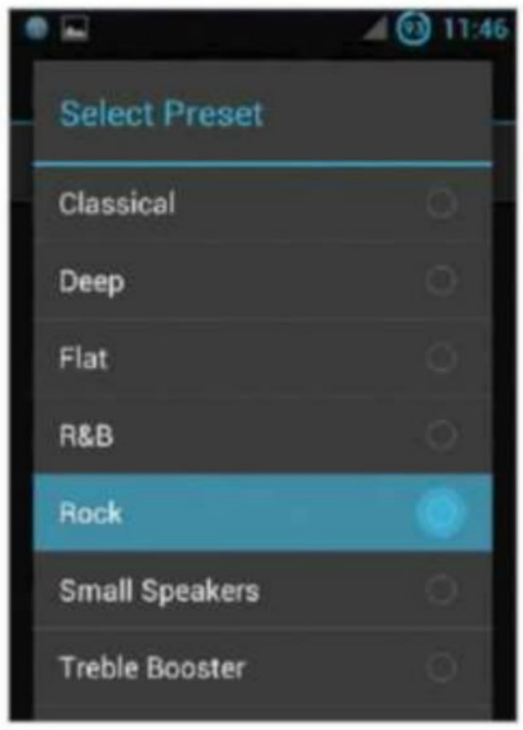
6: Headsets

Now swipe to the left screen to view the Headset options. Dynamic Range Compression compresses the audio being played to reduce the difference between the loudest and quietest points of your music. It can be useful for mixed audio content and sometimes for older tracks, but can ruin the quality of most music.



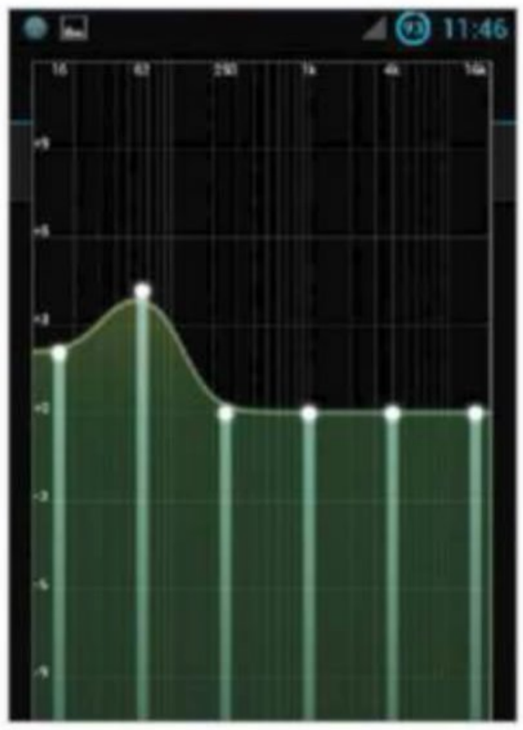
2: The Equalizer

Enable the Equalizer, which is next in the list, by ticking the box next to the option. This will now enable you to very precisely tweak how the audio sounds through your speaker. Remember that different audio types may require different settings in order to get the best sound quality.



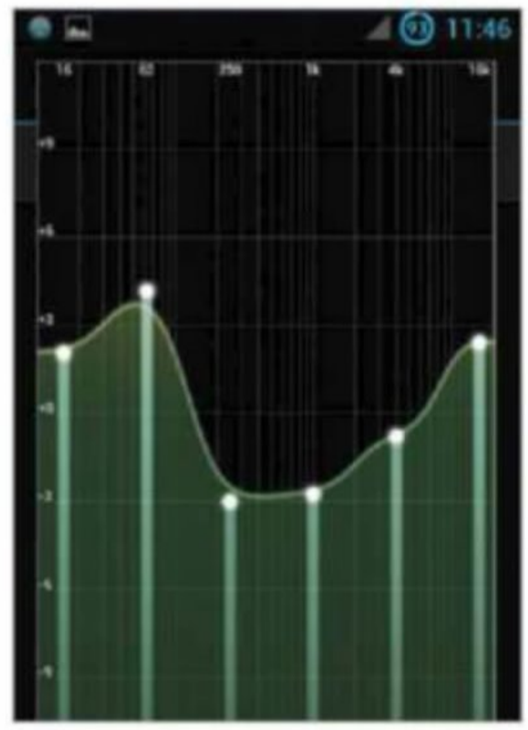
3: Presets

There are a range of preset equaliser settings for you to choose from, including the familiar settings, e.g. Rock, as well as some more interesting options. Set some music playing through your smartphone then try out a few of the options. Choose the Custom option if you want to personalise it further.



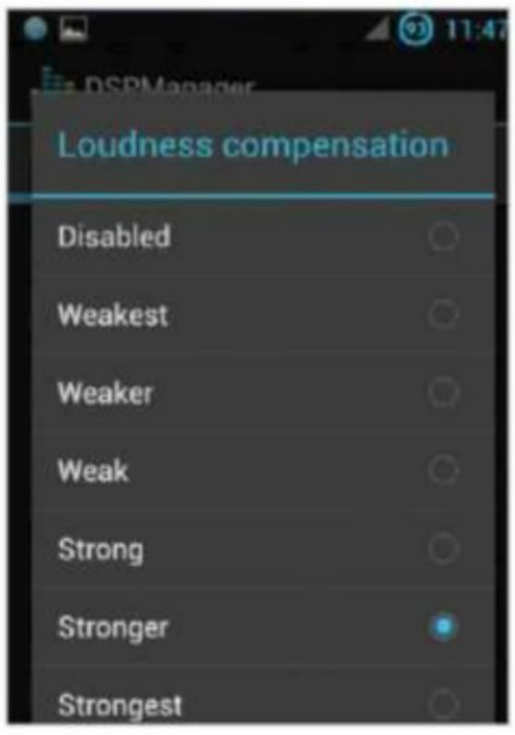
4: Custom settings

Before choosing Custom you should select the Flat preset to reset the curves (or else choose one that you would like to use as a base and then tweak that instead). With music playing, grab each of the points on the graph and move them up and down to create the right balance of sound.



5: Finish off

The left side of the graph covers the bass frequencies your phone can emit, while the middle is for midtones and the right side for the treble. Once you've found a sound that you like, simply press the Back button to return to the previous screen. Your changes will be remembered, but they cannot be saved.



7: Get louder

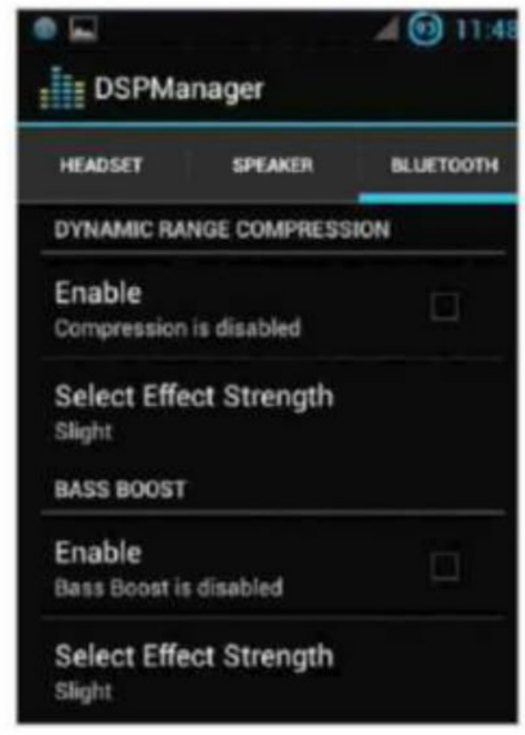
The Headset options should be set each time you use a different set of headphones, as their performance will vary from model to model. Next, choose the Loudness compensation option and choose a level to give the sound a small boost – particularly useful for overly loud or quiet albums.

8: Virtual rooms

The Virtual Room Effect can add an extra level of dynamism to your audio settings by re-creating the ambience of certain environments, such as a recording studio. You'll need to experiment a little to get to grips with the effect, but it can be a successful one for particular kinds of music.

9: On the stage

Enable the Virtual Room Effect by ticking the box before tapping the Select Room Type option. You can now pick between different types of room, each adding increasing levels of reverb to the audio and culminating in the Stage option. Untick the Enable box to turn off this effect.



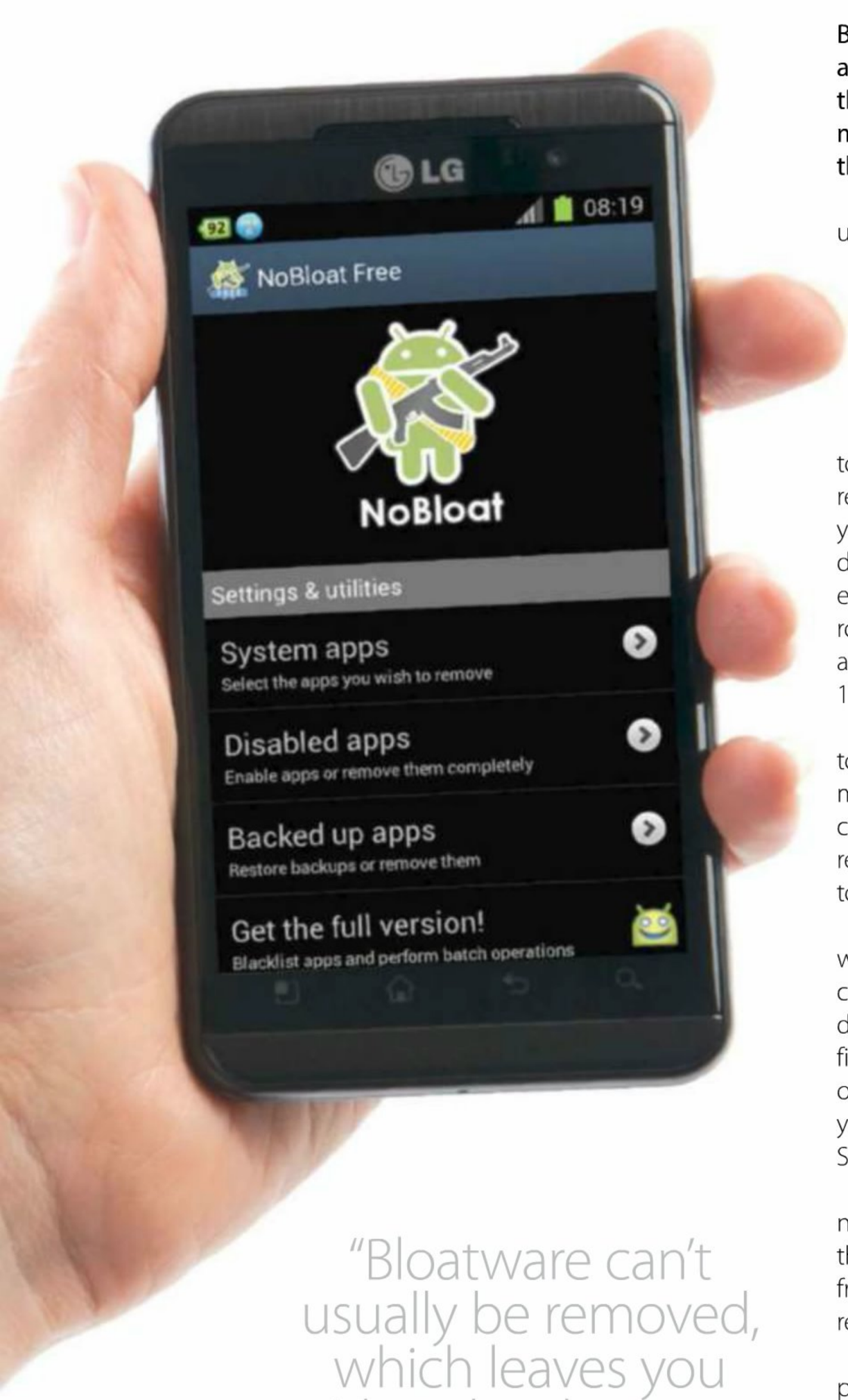
10: Bluetooth

The third option for settings within DSPManager is for a Bluetooth headset. Swipe to the right a couple of times in order to locate these options. Set them up in the same way that you did the Headset settings and they will then activate when you connect your Bluetooth headset to your device.

App used: NoBloat Free **Price:** Free **Time needed:** 20 minutes **Difficulty:** Intermediate

Remove Bloatware from your Android device

Bloatware are pre-installed apps that take up vital space on your handset – we show you how to remove them!



"Bloatware can't usually be removed, which leaves you with redundant apps taking up vital space"

Bloatware is a common term associated with manufacturers that love to pre-install all manner of propriety apps on their handsets.

To make matters worse, these usually can't be removed by default, which leaves you with several redundant apps taking up vital space – not to mention the extra drain on your overall system performance!

Of course, there is a solution to the problem, but in order to remove the aforementioned apps you need to have rooted your device and installed Superuser or equivalent (an app for controlling root access). We have a tutorial about how to do this on pages 118-119.

While there are advantages to removing these apps we must point out that a touch of care is needed, mainly because removing system apps can lead to crashes if you are not careful.

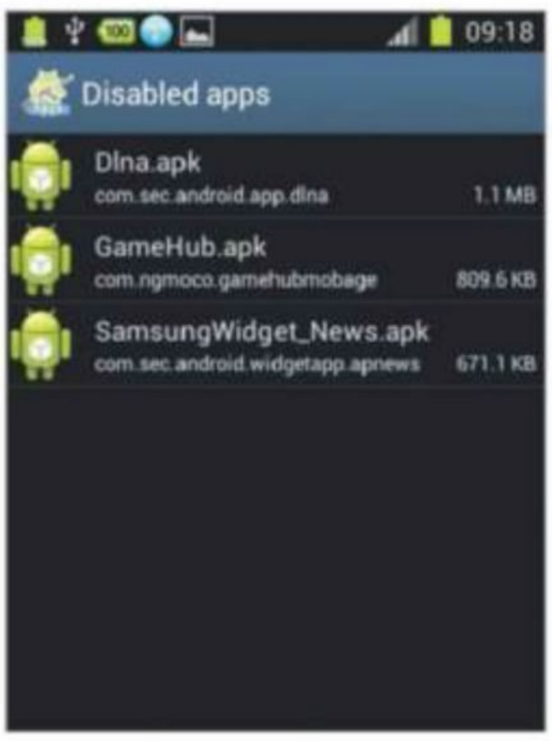
However, to ease the burden we have found a great little app called NoBloat Free (though we do utilise the Full version on the final step) which has the benefit of being able to disable the apps you select, back them up to an SD card or simply delete them.

While disabling apps does not free up any storage space, this at least removes the app(s) from memory and is safer than removing them completely.

Though, in the event of problems, we also show you how to restore the apps – thus returning your handset to its previous state.

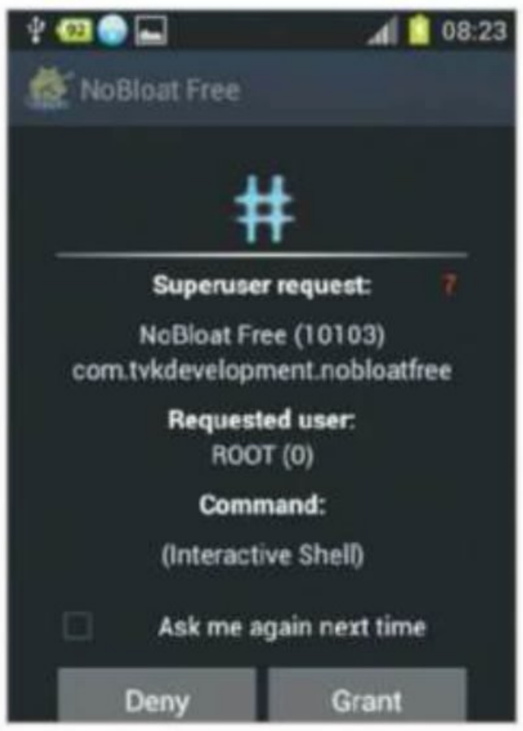
1: Download the NoBloat Free app

Head to the Google Play store and then click on the search icon (usually this can be found in the top corner of the handset). Type "nobloat" into the search field and then press the search icon or return key to search for the app. Once you've found it, install NoBloat Free to your handset.



6: Restoring apps

To re-enable an app that you have disabled first head to the main menu by pressing the Android Back button or else re-launch the app using its icon. Choose Disabled apps from the options and a list of all your disabled apps will appear. Next long-press the app(s) you want to restore and choose Enable, followed by Okay.

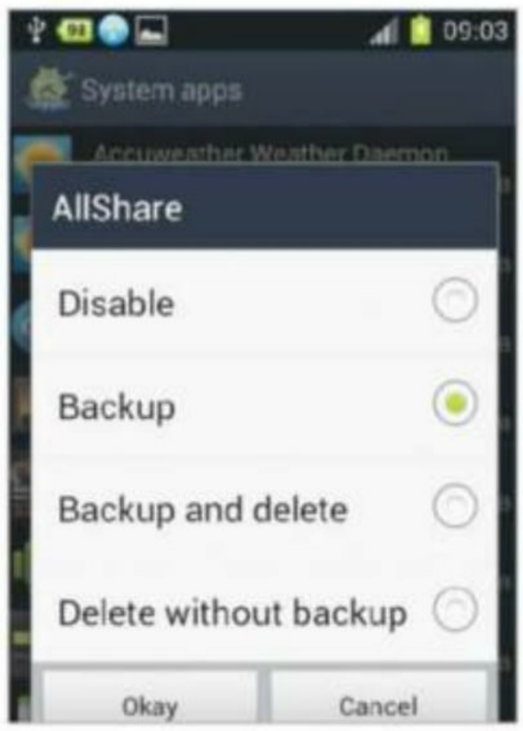


2: Launch and then grant permission

Once installed, tap Open to launch the software. After a short time, a pop-up box should appear with the Superuser requesting permission to access the root. Tap on Grant to continue. Note: This process may differ depending on how your phone has been rooted.

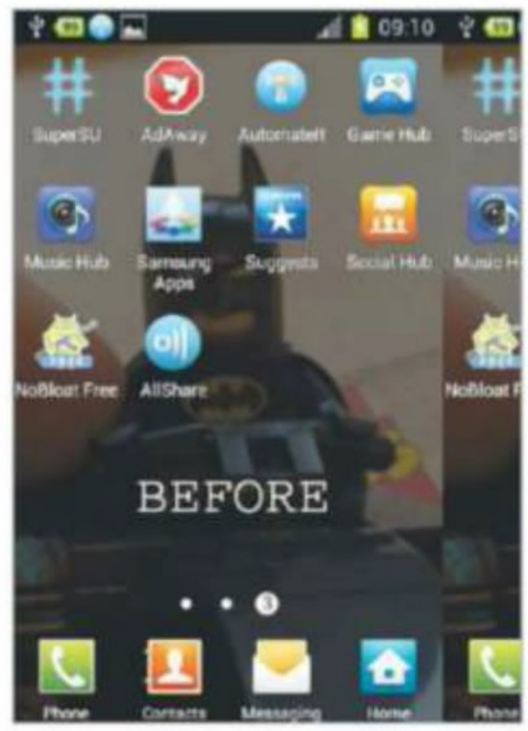
3: Identifying apps

Once running tap the System apps option from the front screen. A list of all your apps will now appear. Each app should have an icon next to it. Usually the icons with an Android bot will represent a system app. Be careful when removing/disabling these as system stability issues can arise if you are not careful.



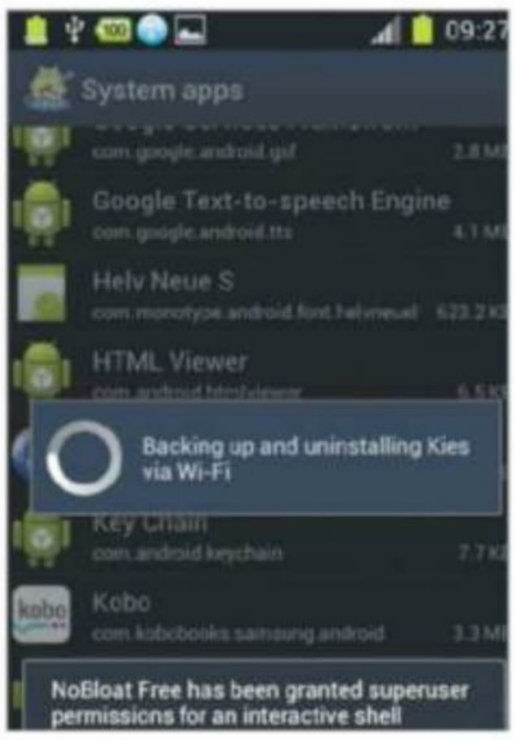
4: Back up apps to your SD card

Before you decide to disable an app it's best to back it up, as certain devices can sometimes fail to restore an app once it's been disabled. With the list in view, long-press on an app icon to bring up a sub-menu. Choose Backup from the list and click Okay to perform the backup.



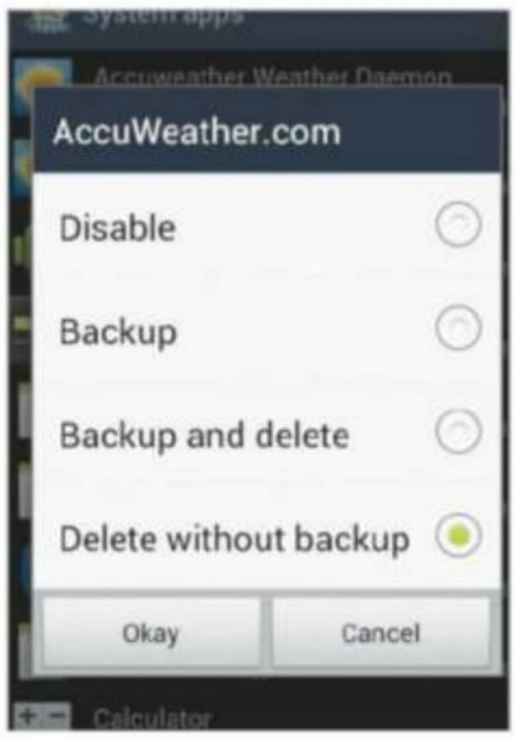
5: Disabling apps

Once you have backed up the app you will then be returned to the list. Next you need to long-press on the app once more. This time, select the Disable option from the resulting list and then tap on the Okay button. The app should now disappear from your list and will be hidden on your Android device.



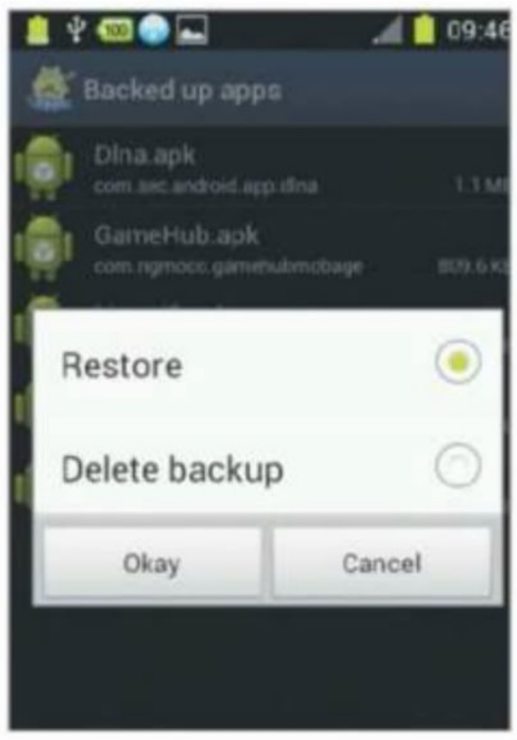
7: Backing up and deleting apps

To remove bloatware completely, head back to the system apps option from step 3. Now long-press on an app that you want to delete and from the list choose Backup and delete. The system will then state it is backing up the app and will subsequently delete it from your phone.



8: Permanently delete

If you decide that disabling an app has no adverse effect on your phone's stability you can permanently delete an app. Head back to the system apps option from step 3 and long-press on the app in question, then choose the Delete without backup option. The app will now be permanently removed!



9: Restore apps

If you want to restore an app that has been deleted head back to the main start menu and choose the Backed up apps option. In here, select the app(s) that you want to restore. A sub-menu will now appear – you need to press the Restore option followed by Okay. Note: In here you can also delete backups.

10: Export/import blacklisted apps (optional step)

On the full version, apps that are deleted/disabled are placed under a Blacklisted apps menu. You can export this list via the Menu button so, in the event of your phone requiring re-rooting, the Blacklist can be imported and the apps removed quickly.

App used: GO Launcher EX **Price:** Free **Time needed:** 15 minutes **Difficulty:** Beginner

Change your Android Launcher

If you are fed up with the way your default launcher works, there are plenty of alternatives to replace it!

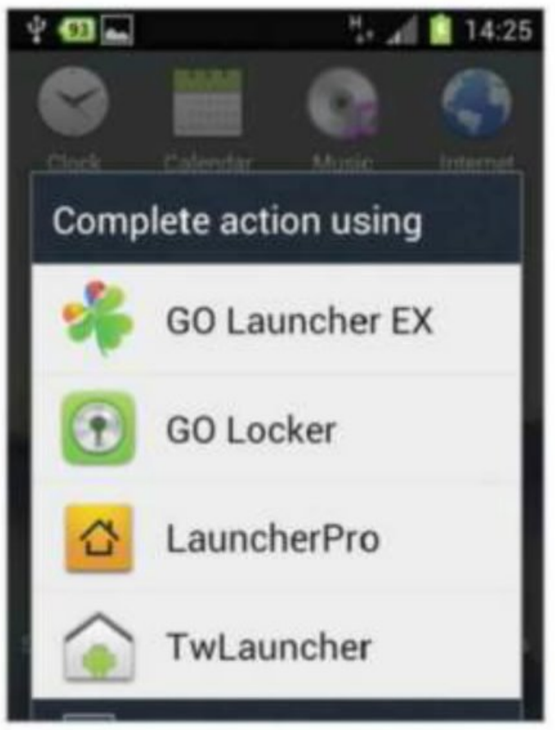
"Launchers control home screens, widgets and the dock"

Why should you keep your Android phone looking and behaving the same as everyone else's? By default, your launcher (which effectively controls the home screen, the widgets and the way the application dock looks/functions) is set by the manufacturer and there are some pretty good stock launchers out there, but equally there are some pretty poor ones too.

However the good news is you can easily change the way your phone looks and behaves by downloading a series of third party launchers from the Google Play store. What's more, most of the launchers will work without a problem on non-rooted devices, though rooting is still required on some launchers (Apex or Nova Launcher for example) when trying to add widgets from the app draw – mainly due to the limitations set by the Android framework itself.

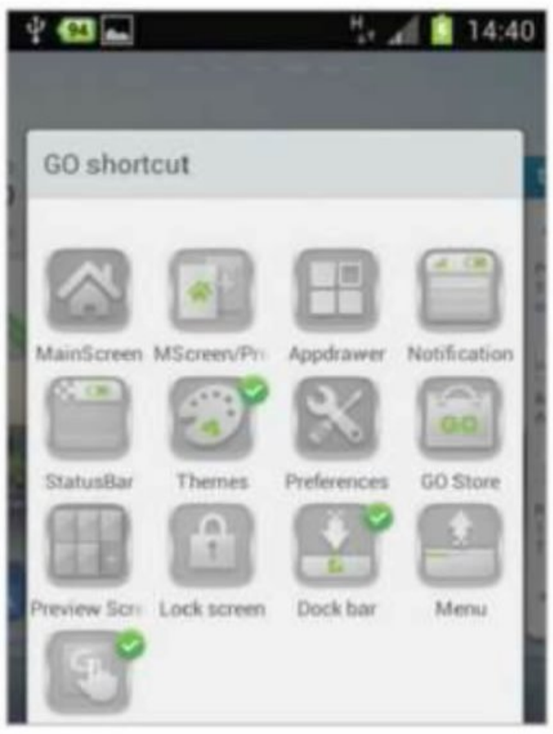
To be honest, your only real problem is that there are quite a lot of launchers to choose from, but the good news is that you can add more than one to your device and even access features from one and use them on another (i.e. wallpapers) or switch between launchers at will.

In this tutorial we take our rooted Samsung Galaxy S II and focus on showcasing Go Launcher EX (one of the best launchers out there), and show you how to customise the Home Screen, icons, change themes, gain faster access to apps and switch between launchers.



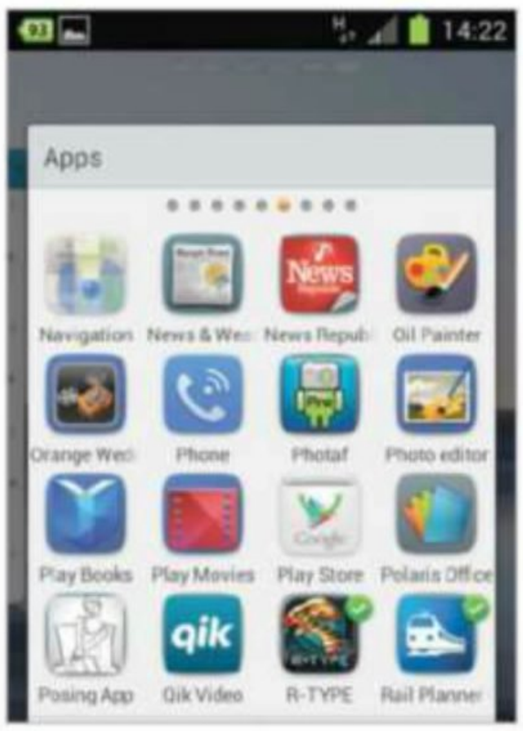
1: Switching between launchers

Install Go Launcher EX from the Google Play store. Once installed, press the Android home button. A list of your launchers will appear, with a tick box allowing you to choose the default. For now, simply select Go Launcher EX. Note: if you tap the home button again you can switch between them.



6: Add Go Shortcut

Long-press on the home screen then scroll to the right and select the Go shortcut icon. From the list, tap on Dock bar, Themes, and Custom Gestures. Click OK to finish. Tapping on Dock bar will hide the bar, freeing up more space. Themes will quickly allow you to adjust the look of the launcher/locker – see step 10 for adding themes.



2: Add apps to the Home Screen

Go Launcher EX provides an intuitive way to add apps from your application draw to the home screen. Simply long-press on the home screen and select the Apps icon at the base. A list of all your apps will now appear. Tap on each app to select them and click OK to finish.

3: Create custom folders

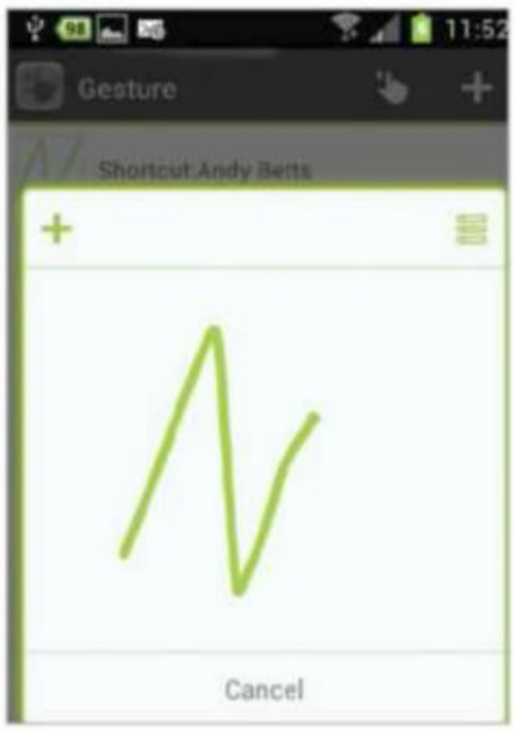
Head to your main app drawer and press on an icon until it shakes. Then, drag one app on top of another to bring up the folder window. You can rename the folder by tapping on the top right corner or simply scroll through your app list and tap on each item to add to your folder.

4: Customise dock

You can also create custom folders on your home screen or dock bar by dragging and dropping icons on top of each other. However with this launcher you can also customise the dock bar. Simply long-press an icon to remove it or drag it to the home screen. You can also drag icons back to the dock bar.

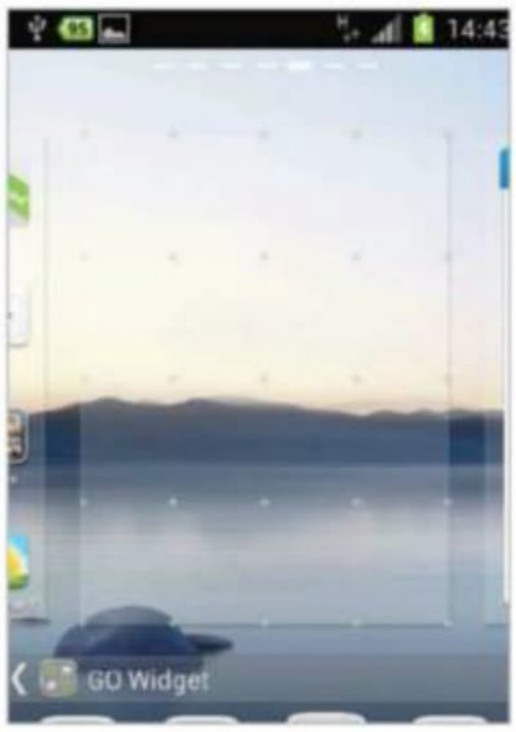
5: Replace icon look

Long-pressing on an icon from the home screen (including the dock) will allow you to select the Replace option. After tapping this, you can select from pre-installed icons or the gallery icon at the top. Here you can select and crop a picture from your own gallery which then becomes your main icon.



7: Gesture Shortcuts

Tap the Custom Gesture icon and a window will appear. Select the + sign and then draw a pattern on the screen. Choose a response and then select Shortcut to pick, e.g. a contact. Afterwards, click the hand symbol at the top or head back to the home screen and then tap on the Custom Gesture icon. Draw your squiggle to activate the shortcut.



8: Go Widget download

Long-press on an empty home screen and choose the Go Widget option. In here, scroll through the list and choose the Twitter widget (as an example). Note: The widget then has to be downloaded from the Google Play store. Once installed, press the Back button to return to the home screen.

9: Install the Widget

You should now find under the Go Widget option that the Twitter widget is displayed in colour. Simply tap on the icon and choose Add to screen to place the widget. Authorise the widget via Twitter (by logging in) and, once running, you can post tweets or view messages from the home screen!

10: Go Store

Press the Menu button and access the Go Store to download new themes, widgets or lock screens, or else tap the effects icon to adjust how the screen reacts to swipes. Finally, you can reset your launcher from a default status (see step1) in Settings > Applications. Then scroll down to Clear defaults.

Time needed: 15 minutes Difficulty: Intermediate

Add themes to your Android phone

Don't follow the crowd: follow your own design agenda with a new theme for your device

It is possible to change the entire look of your Android phone, altering a host of visual aspects of your screens for the ultimate in custom personalisation. One of the most popular methods is by choosing a brand new theme. This gives your phone an instantly fresh look.

In order to do this, you will need to root your phone. As you will have seen elsewhere in this bookazine, this allows you to do whatever you want to your phone, and being able to change the entire look is just one of the perks.

There are many websites around which allow you to alter the Android aesthetic, among them **http://android-themes.net**, which gives you a flavour of the kind of themes that you can adorn your Android phone with. They are particularly good if you have purchased a heavily branded phone. With a new theme on your handset, you will no longer be reminded of the carrier you have gone with, and will instead be able to personalise a handset which reflects your own possibly unique tastes.

That's not all. Using root-only apps like Font Changer, which you can download from Google Play, you can alter the look of the letters and font on the screen of your device. Other apps such as LCDDensity for Root enable you to change the resolution of your screen. For the purposes of this tutorial, however, we are going to concentrate purely on themes.

1: Find a theme

There are many websites out there which allow you to view and download new themes for your device. One of the best is Android Themes, which you can access by heading over to **http://android-themes.net**. It has dozens to choose from, meaning that you should be able to find something to suit your preferences.

6: Applying the theme

You will see a number of options available to select on your Android device's recovery screen. One of the relevant options will be to apply update.zip. This is the option that you want, so scroll down to it by using the volume keys to navigate the list and then press the Home button in order to select the option you need.

2: Make a choice

Click on a theme that you like the look of and you will see a description of it. The Android Themes website will point you towards a link from where you can download the theme. You will also see a user rating for each theme, thus giving you some criteria to judge them by before downloading to your device.

3: Download the theme

Once you have reached the website that hosts the theme, just click on the download button. After it has finished downloading to your PC or Mac, rename the file. It has to be called update.zip, so right-click on the file and then make the relevant alteration.

4: Plug in your phone

Connect your Android device to your desktop computer, and it will appear on the screen labelled as a removable disk folder. Find it on your machine and then double-click on it. You'll need to place your new file, update.zip, into the root of your folder, which is directly on the drive letter.

5: Recovery mode

Now you need to relaunch your phone, so long-press the power button. When it closes, press and hold the home and power buttons together until the screen starts to vibrate and then displays the boot logo. When you release the two buttons, your phone will go straight to the recovery screen.

7: Completing the install

There will be a short wait, and then the screen will display the words 'Install from sdcard complete'. At this point, a new theme will have been placed onto your phone ready for you to use. However, before you can see it, you will first have to turn off your phone.

8: Rebooting the phone

In order for the device to work, you will need to reboot it again. Select Reboot Now by holding the home and power buttons together once again. Your phone will now begin to update – you will see the Android logo before your theme is shown. Don't worry if this step takes a while.

9: And there it is

All being well, you should now be looking at a brand new Android theme. You can change it at any time by simply going through the same process and overwriting the old update.zip file with a new one (ensuring that the file is named correctly again). Now, you can really make your phone shine.

10: Customise your theme

One final thing worth mentioning is MoDaCo. The **www.modaco.com** website has an in-built service, beginning at £9.99 per year, that allows users to make their own personalised Android ROM. By rooting your phone you can install this and then have even greater control.

App used: aScreenshot **Price:** Free **Time needed:** 15 minutes **Difficulty:** Intermediate

Take screenshots on your Android phone

You don't have to rely on the built-in screenshot mechanisms – there are alternatives

"It is possible, for instance, to tilt or shake your device in order to take a screenshot"

When Android 4.0 was unveiled, it came with something that people had wanted for a long time – the ability to take screenshots. A staple of the iPhone, it was a sadly omitted feature on Android up until this point.

But as good as this is, there are still other ways of taking screenshots which may suit you better, and many of these have been around for a while for those who have rooted their Android devices.

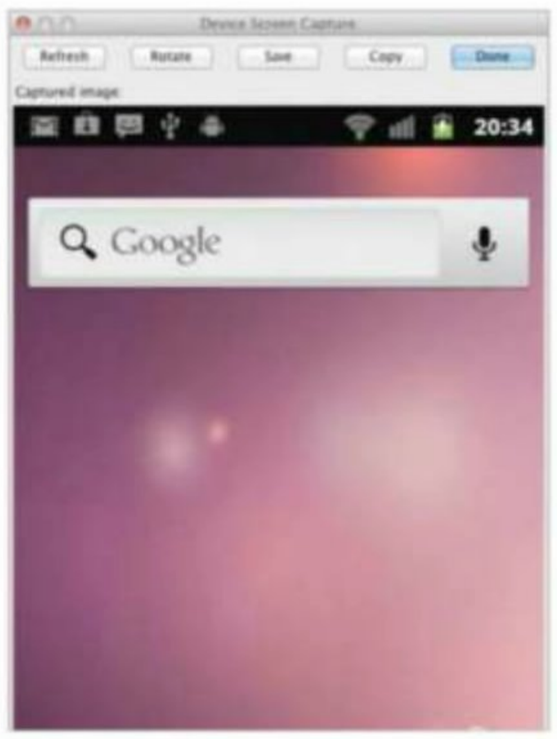
It is possible, for instance, to tilt or shake your device in order to take a shot, or you could hook up your device to your computer, load up Google's SDK and take shots that are then uploaded directly to your PC or Mac. Another ingenious way of taking a screenshot is via the web, using Wi-Fi to beam a screenshot from the Android device to the computer.

Being able to take screenshots is vital for a number of reasons. It's a good way to be able to quickly take a snapshot of your phone that can then be sent via social media, or you may be reviewing apps or even writing tutorials and need to grab some images.

Of course, you may simply prefer to stick with what you have already got, but what if you don't have an Android 4.0 device? With this in mind, we look at ways of taking screenshots on any Android handset so that you will never be left scratching your head.

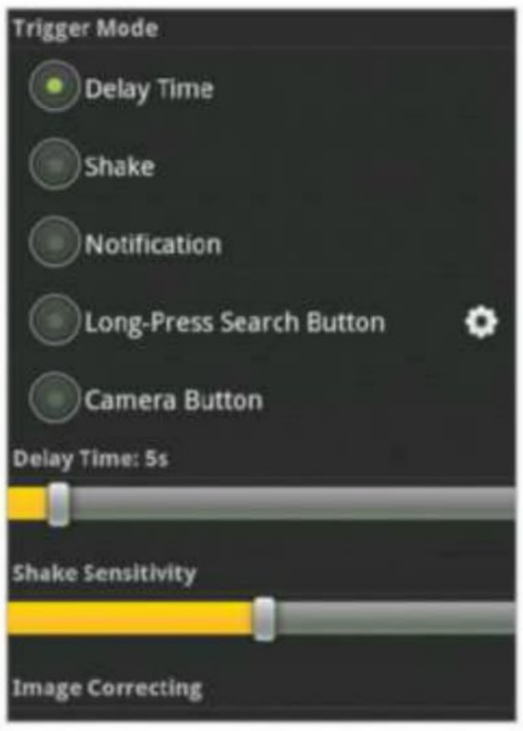
1: The traditional way

Taking screenshots is reasonably straightforward on an Android 4.0+ device (i.e. Ice Cream Sandwich or better). Simply press and hold the volume down and power buttons at the same time. The screen will then show you an animation, which indicates that the screenshot you have just taken has been saved to your Gallery.



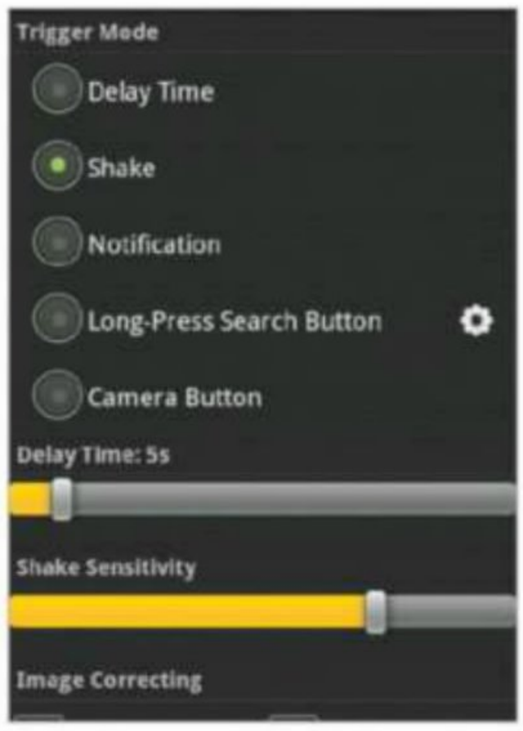
6: Use the Android SDK

It may be the case that you have a new phone and don't want to root it just yet, or your phone doesn't have Android 4.0. If so, simply download the Android SDK onto your desktop. You'll then need to connect your device via USB and launch the SDK, looking for the ddms program. Press Refresh screen in order to take shots.



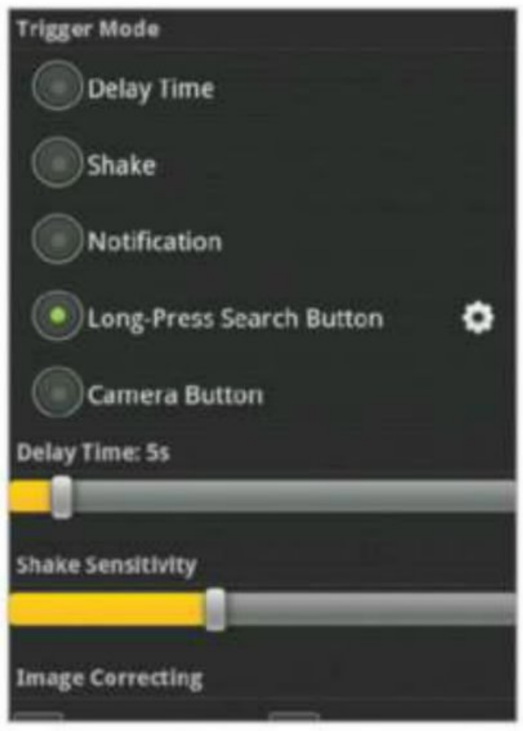
2: Install aScreenshot on your Android

If you aren't running 4.0+, however, head over to Google Play and find the aScreenshot app. Download and install it. For it to work you need a rooted phone, but once you have it you can use many wonderful screenshot methods – you don't need Android 4.0!



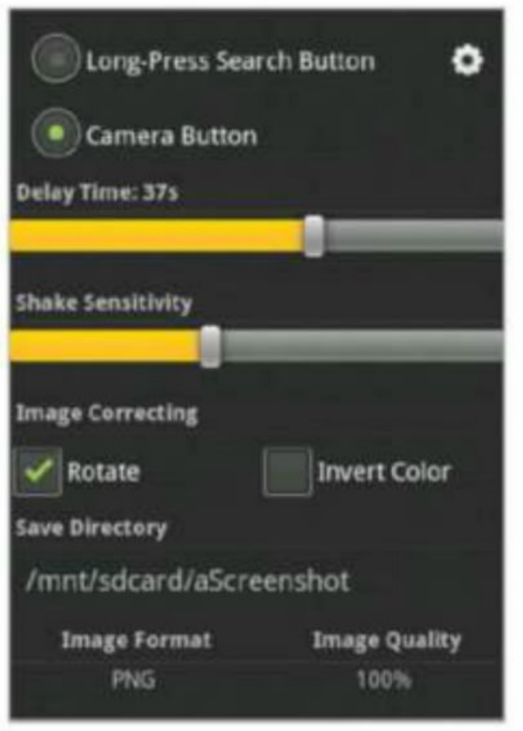
3: Shake the screen

By selecting the Shake option you will able to set up your phone so that you can take a photo simply by giving it a rattle. Bearing in mind that you won't want to accidentally take shots, you can use the slider within the app to define the sensitivity of the shake and prevent accidental snaps whilst walking around.



4: Long-press search button

Another option available to you is to long-press the search button in order to take a screenshot, which may be more preferable to you than squeezing the Android phone or having to shake it. It's a one-button press solution for all your screenshot-related needs.



5: Camera button press

Alternatively, you may want to press the camera button on your phone, if you have one dedicated to taking pictures. It is also worth pointing out the image correcting option, which is good for defining exactly how you wish your screenshot to be processed by the app once you have taken it.

7: Take shots via web browser

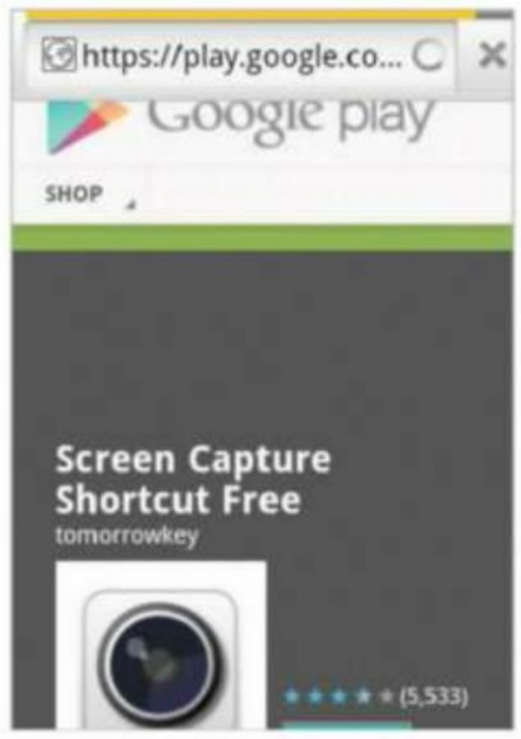
Alternatively, you can use AirDroid, which allows you to take screenshots via your web browser. It does this wirelessly, which proves to be a brilliant way of capturing screens you might want to manipulate on your desktop. It automatically uses your Wi-Fi to achieve this.

8: Using AirDroid code

Type in the web address that AirDroid gives you, as well as the code that will be displayed on your device. You will need root access in order to use Air Droid (see pages 118-119 for details), but once you are in you can press the screenshot option in order to capture images on your desktop computer.

9: Manufacturer shortcuts

Phones which pre-date Android 4.0 sometimes have their own screenshot shortcuts. Among them is the Galaxy S II which, for example, allows you to press the home and power buttons together in order to take a shot. It's worth searching the web to see if your phone has one.



10: Other apps

You can also use apps that are specifically made for individual devices. Samsung phones are well catered for in this respect thanks to the Screen Capture Shortcut Free app, found on Google Play. Spend a little time browsing the store if you wish to find something specific to your phone.

App used: Button Savior (Root) **Price:** Free **Time needed:** 15 minutes **Difficulty:** Intermediate

Set up virtual hardware buttons

Replace your hardware buttons with onscreen equivalents

When you buy an Android phone the contract that you get it on, if you haven't bought a handset outright, will typically be two years long, which means that you will be in possession of that phone for two years.

Over the course of that period the phone will succumb to the effects of a certain amount of wear and tear: bumps and knocks, scuffs and scratches on the screen and, an overlooked issue, the weakening of the hardware buttons.

Tapping the home button or the power button maybe ten times a day every day for two years will put it under real pressure. It's not uncommon for you to notice during the later stages of your time with a device that you need to press the buttons a little bit harder than you used to, in order to make them register. In some cases – that of the home button especially – these hardware buttons can fail altogether and cripple your phone.

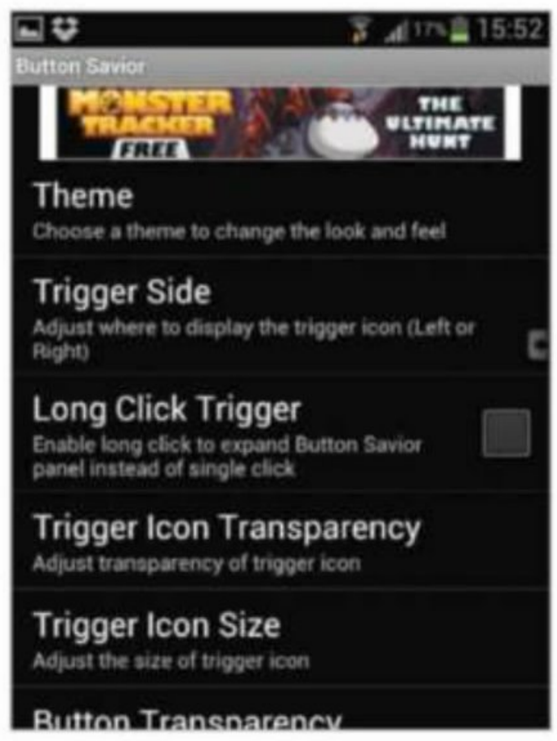
Fortunately you don't have to live with this problem. If your phone is rooted then you can use an app such as Button Savior (a free download from the Google Play store and which is also available in a Pro version) to set up on-screen software buttons to replace their hardware variants.

In this tutorial we will show you how to rescue your old phone with the Button Savior, and how you can use it to create an altogether more powerful set of controls right at your fingertips.

"Hardware buttons can sometimes fail altogether and cripple your phone"

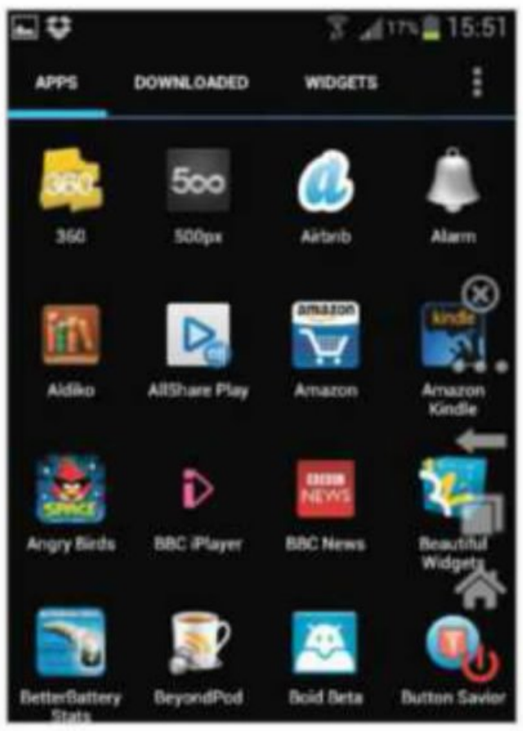
1: An overview

Head over to the Google Play store and search for the Button Savior app. Once you have downloaded and installed it, simply tap on the Open button to launch the app instantly. You will see a small arrow icon appear about half way up the right hand side of the screen. Your new hardware button replacements are tucked away in here.



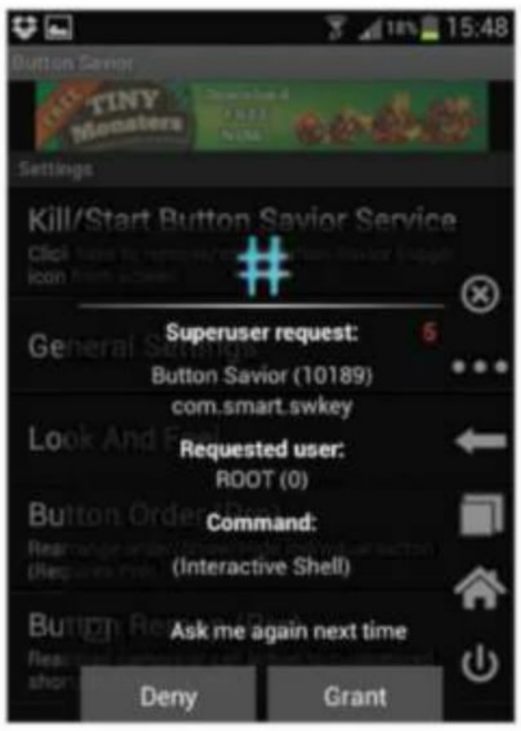
6: Look and feel

Tap the Look And Feel option to change the appearance of the button panel. There are preset themes to match your phone's user interface, such as a Sense theme for HTC devices or a Honeycomb theme for tablets. Pick the one that you like the best and adjust the other details, such as transparency and size, to your preference.



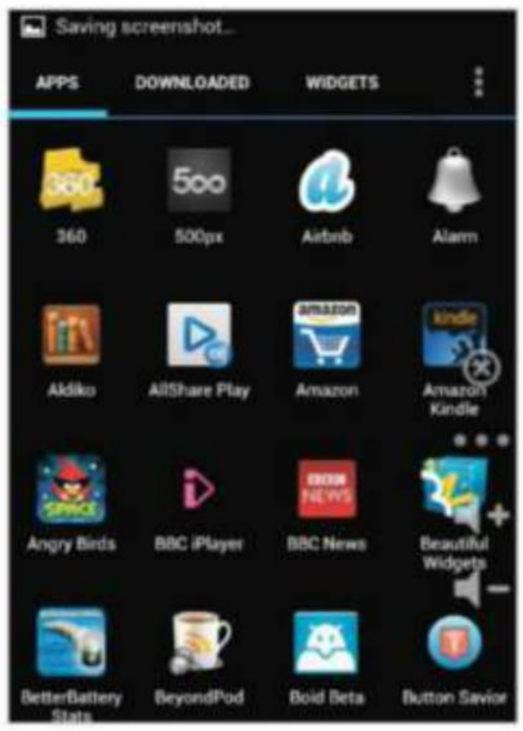
2: How it works

Tap the arrow icon and a column of further icons will open out along the side of the screen. These correspond by default (from top to bottom) to the back, task switching, home and power buttons respectivley. You will be able to change the order of these icons to suit your workflow if needed.



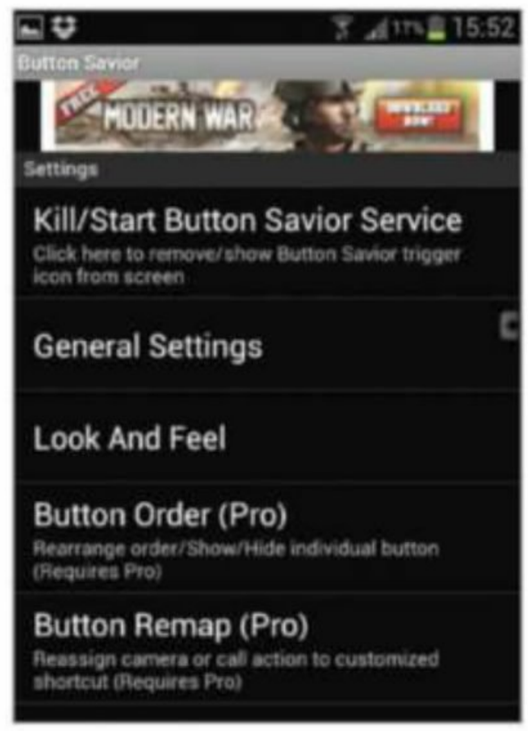
3: Root privileges

Some functions within Button Savior can be used on any phone, but some will require your phone to have been rooted (see our guide on pages 118-119). Tap on the task switching icon and a dialog box will open up, asking you to grant the app root access. Grant the permission in order to use this function.



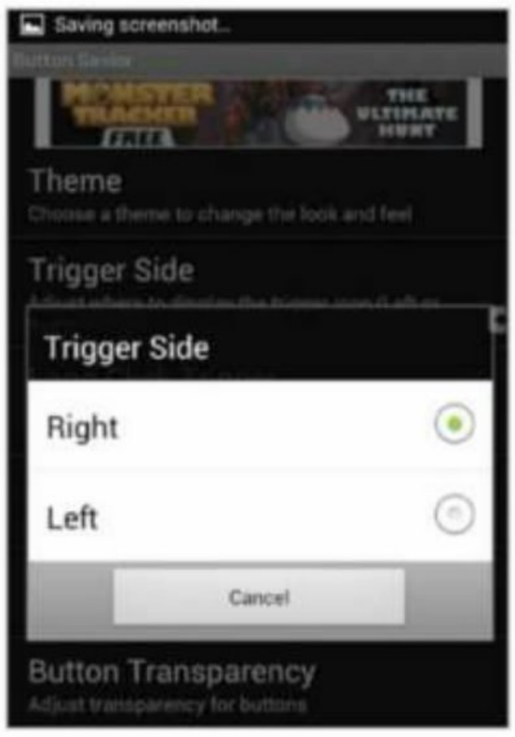
4: More buttons

At the top of the column of virtual buttons is an icon composed of three dots. Tap this to move to a second (and third) page of icons. The second has (again, top to bottom) phone, camera, search and apps buttons; the third has the volume controls. Tap the X button to close the icon list.



5: Configure the app

The app works well enough without any configuration but you can tweak it to quite some degree. Open up the app through your apps panel and then head to the General Settings screen. From here you can set the button panel to automatically hide itself after a set period of time.

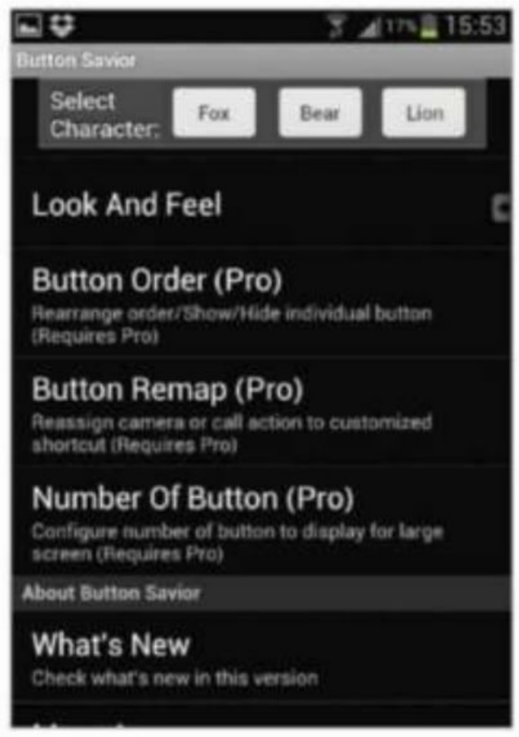


7: Make it left handed

Another tweak that you might wish to make is to set the app for left handed use. Tap on the Trigger Side option and then choose Left. This will automatically switch the location of the buttons from their default position along the right hand side of the screen to just below your left thumb.

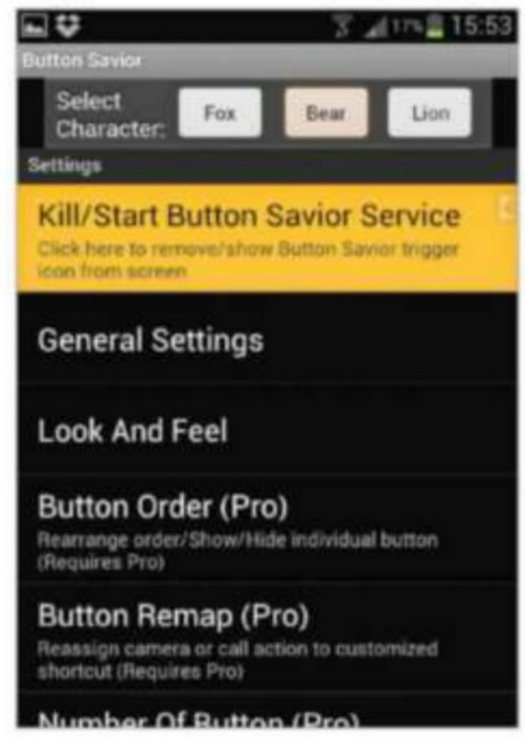
8: Move it up

Finally, view the Icon Position slider toward the bottom of the Look And Feel screen. Sliding this left and right will move the Button Savior icon up and down the side of the screen. The trick is to choose the position that is directly below where your thumb rests to make accessing these buttons easier.



9: Remap buttons

The Pro version of Button Savior has the ability to remap the hardware buttons on your phone. This enables you to change the function of one or more of the buttons, such as making one work as a camera shutter button. Combined with the software buttons, it's a good way to extend their functionality.



10: Close the app

At the very top of the Button Savior configuration screen is the Kill/Start option. You can use this to close the app, remove the software buttons icon from the side of your screen, and also to restart it once more when you need it. Create a shortcut to the app on your home screen for easy access.

App used: AutomateIt **Price:** Free **Time needed:** 15 minutes **Difficulty:** Intermediate

Automate your Android smartphone

Automating tasks on your handset is a great way of improving your day-to-day productivity

Automating tasks on your Android handset may not be something you have thought of before, but there comes a time when the automation of standard phone functions becomes a godsend.

Take the cinema or meetings, for example: how many times have you been to a cinema or arrived at an office meeting and forgotten to turn your phone off or into silent mode?

The above scenarios and many more options can be automated using the app AutomateIt – which is the focus of this tutorial.

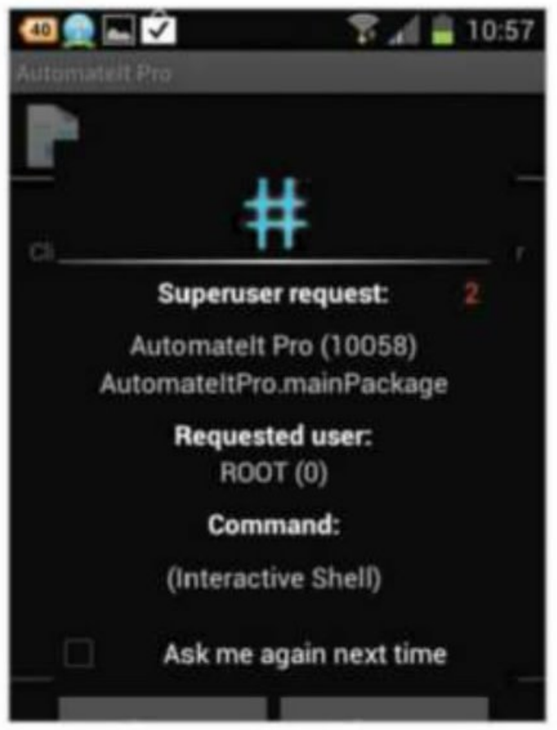
We utilised the Pro version (£1.00/$1.60), but you can download the Free version (with ads) to follow most of the steps.

Here we will cover location and time-based triggers, such as if the GPS detects you are at the cinema, it will turn the phone off. We also look at the Pro version's Composite Actions function, which is the process of combining tasks, i.e. if an action is triggered, open an application and turn on mobile-data.

There are many ways of automating tasks, but you should be able to get a grasp a fair idea of what is possible from following this tutorial.

We must point out that while the app does not require root access you will need it to automate the restart and shutting down of your phone.

So, using our rooted Samsung Galaxy S II, we move through several steps to showcase how to automate a number of tasks.

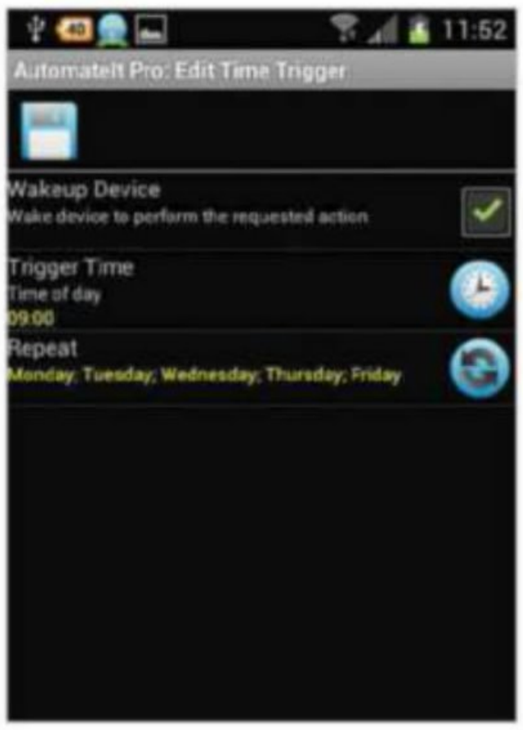


1: Add a Rule and grant permission

After installing AutomateIt from the Google Play store, launch the app and then click on the large + symbol at the top-left corner of the screen. If you have rooted your phone, a Superuser message may appear requesting root permission. Click on Grant to allow access and continue to the next step.

6: Use GPS Location

Tap the Android menu button and save the location. Now select the Action drop-down button and pick Shutdown Device Action. Finally, give the Rule a description, i.e. 'Cineworld', tick the Delayed Execution box and set this to 15 Minutes by tapping the time field box. Press the Android menu button to save the Rule.

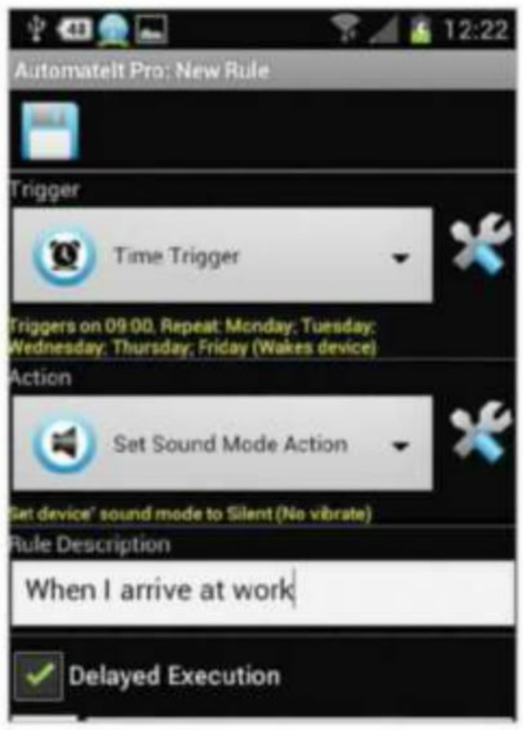


2: Time-based Triggers

At the main Rule setup screen click on the Trigger drop-down box and scroll through the list and select Time Trigger. Next tap the settings icon to the right and click on the clock icon to adjust the time that you want the trigger to commence. Tap Set to finish. Optionally adjust the Repeat mode below.

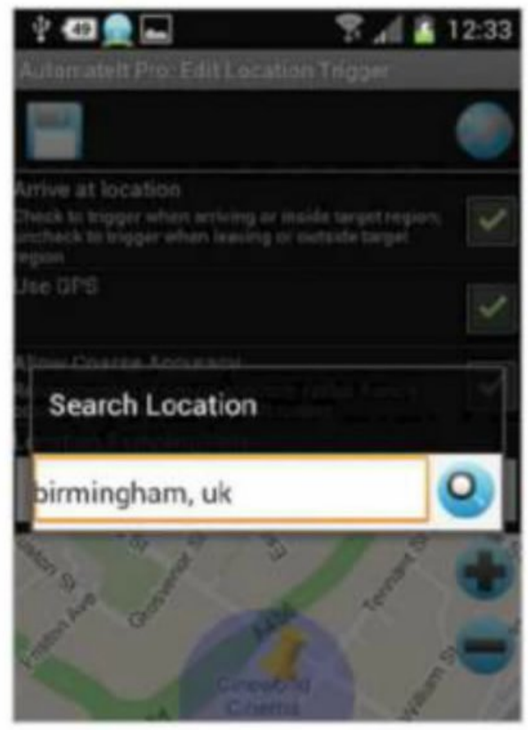
3: Sound Mode action

Now press the Android menu button and select Save. Back at the Rule screen click on the Action trigger and select Set Sound Mode Action. Next Press the settings icon and choose Silent (no vibrate) from the list. Finally, press the Android menu button to save and return to the previous screen.



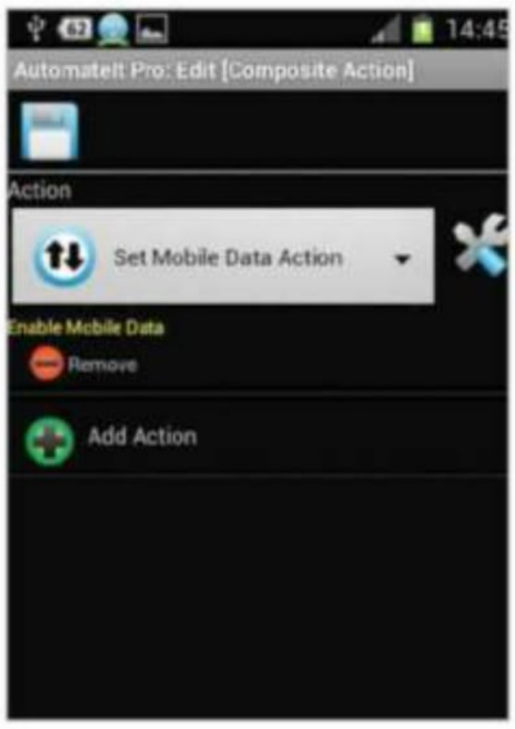
4: Delayed Execution

Next give your Rule a description i.e. 'When I arrive at work'. Now you can press the Android menu button to save the Rule or click on the Delayed Execution button below to stop the action from happening immediately. Click on the drop-down tab to set the time delay (seconds, minutes, hours or days!).



5: Use GPS Location

Click on the + symbol to create a new Rule. Next select the trigger drop-down box and choose Location Trigger. Click the Settings icon to launch the embedded Google Maps. With GPS active, tap on the search icon at the base to type in your destination area. Scroll the map and tap to select a destination.



7: Composite Action

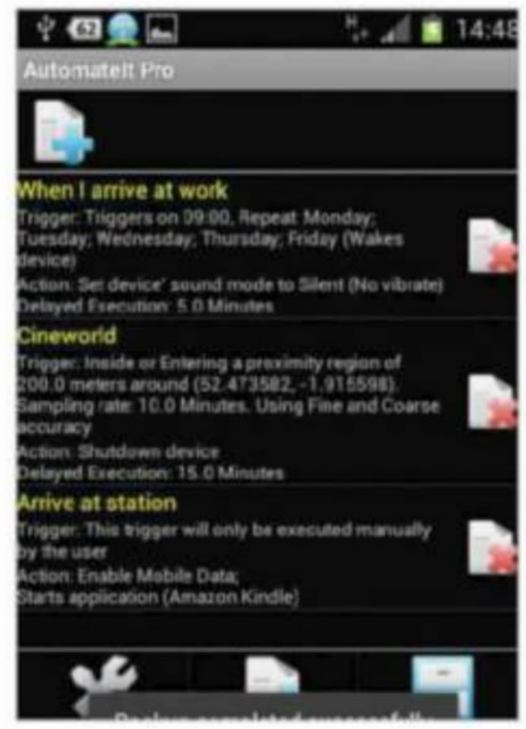
Click on the Add Rule option and from the Trigger drop-down box, select Manual Trigger. Next click on the Action drop-down box and choose Composite Action. Select the settings icon next to the Action box and click on the Add Action option. Now select Set Mobile Data Action from the drop-down box.

8: Add the Actions

Click the settings icon next to the drop-down box and tick the checkbox Mobile Data Enabled. Now press the Android menu button to save the changes. Select the Add Action button and choose Start Application. Next tap the settings icon and then the folder/search icon to pick, for example, the Kindle app.

9: Running the Rule

Press the Android button to save the changes. Give the app a description and save the Rule. To execute the Rule just long-press on the Trigger name and select Perform Action. Your Rule should now switch on the mobile data and launch Amazon Kindle. You could also automate the above by adding location triggers.



10: Backup & Restore

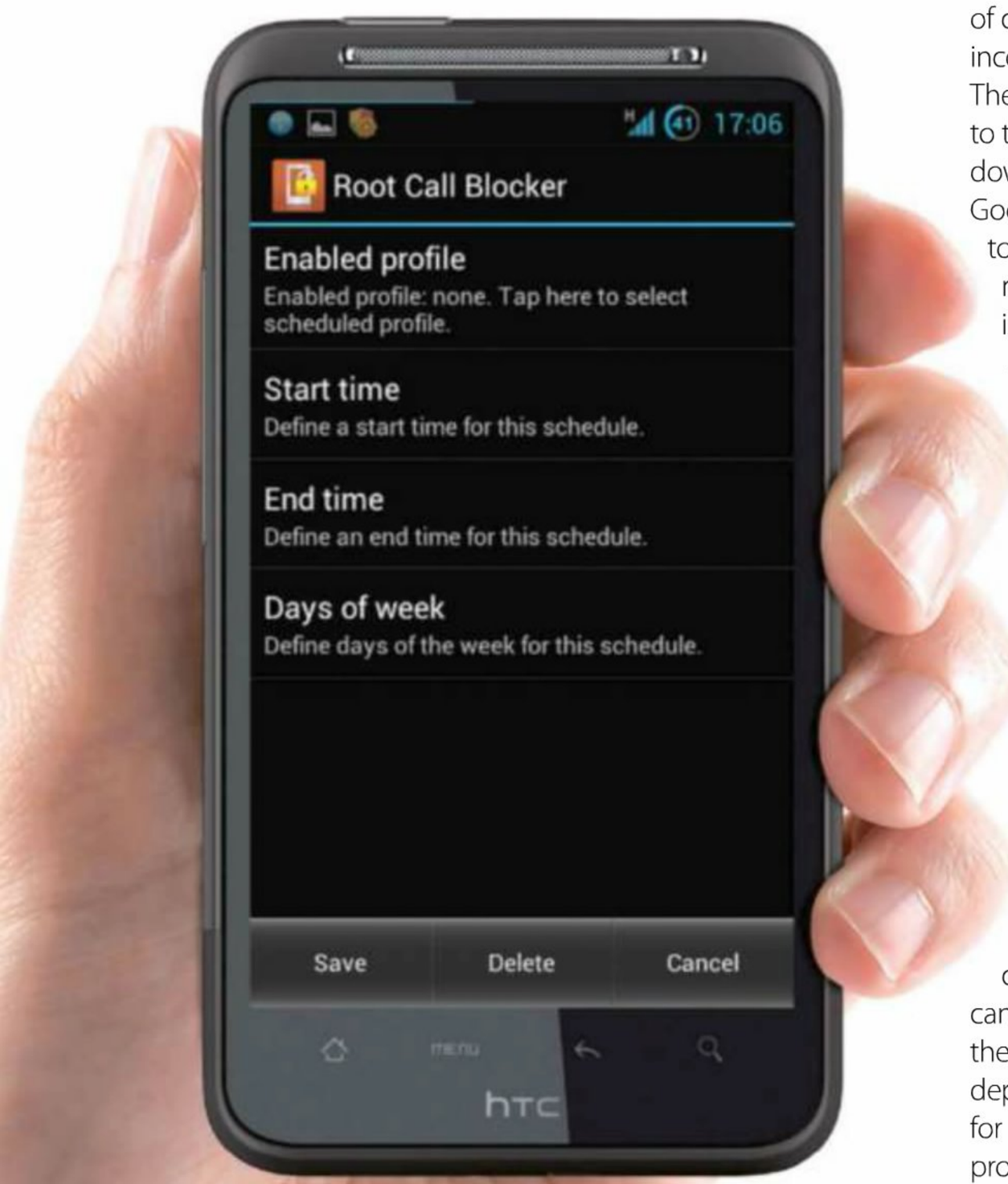
To amend a Rule, just tap on it from the start screen and experiment away! First, make sure to press the Android menu button from the start screen and choose Backup Rules. Then if you need to restore the Rules (in case of a mistake/system wipe) just choose the Restore Rules option to restore them.

App used: Root Call Blocker Pro **Price:** $4.48/$6.99 **Time needed:** 10 minutes **Difficulty:** Intermediate

Block calls you don't want

Never again be pestered by unwanted junk calls. Use Root Call Blocker Pro to block them all

"In addition, you can create profiles that change the way the app functions depending on where you are"

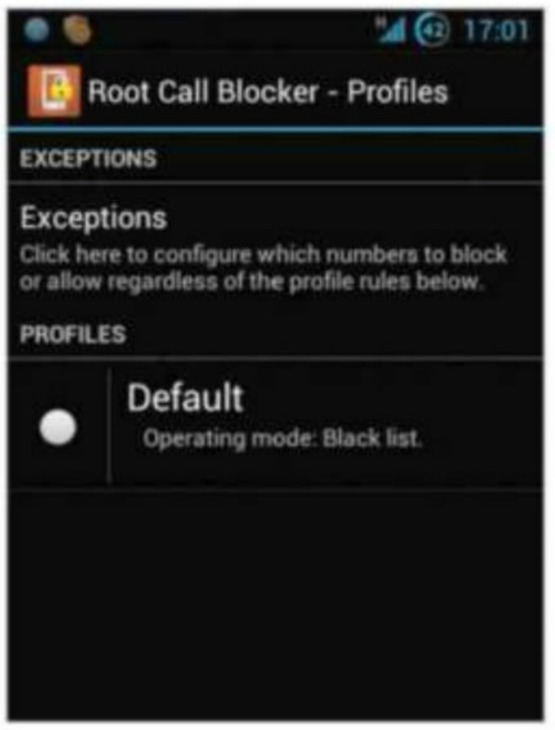


Junk calls have always been the bane of the phone user's life, from the cold callers trying to flog you a conservatory to recorded messages asking whether you've been mis-sold a loan. And now that more and more of us are using our mobiles as our main phone, these kinds of calls are becoming not only inconvenient, but intrusive.

There's a relatively simple solution to this problem, and it involves downloading an app from the Google Play store and setting it to deal with unwanted calls. But most apps are fairly limited in their functionality and not always 100 per cent reliable.

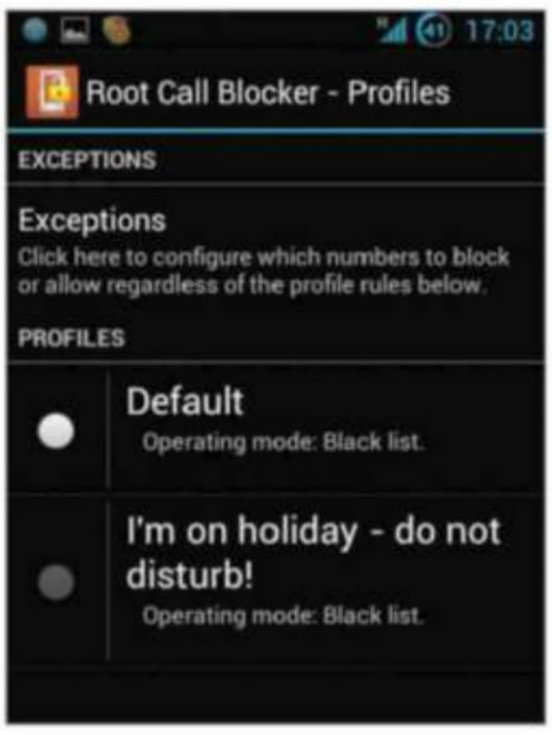
Root Call Blocker Pro, as its name implies, requires your phone to be rooted in order to function, which makes it significantly more powerful than a regular app for non-rooted devices. With it, you can block individual numbers or people from your contacts list (if you no longer wish to be pestered by them), you can block any number that is set to private or unlisted, or you can even block entire area or country codes. In addition, you can create profiles that change the way the app functions depending on where you are, for instance, creating a 'holiday' profile that only allows calls from an approved white list in order to minimise the number of calls you get on holiday without making yourself completely unavailable.

All in all, it's an incredibly powerful app that's packed full of functionality. Simply read on to find out how to use it effectively.



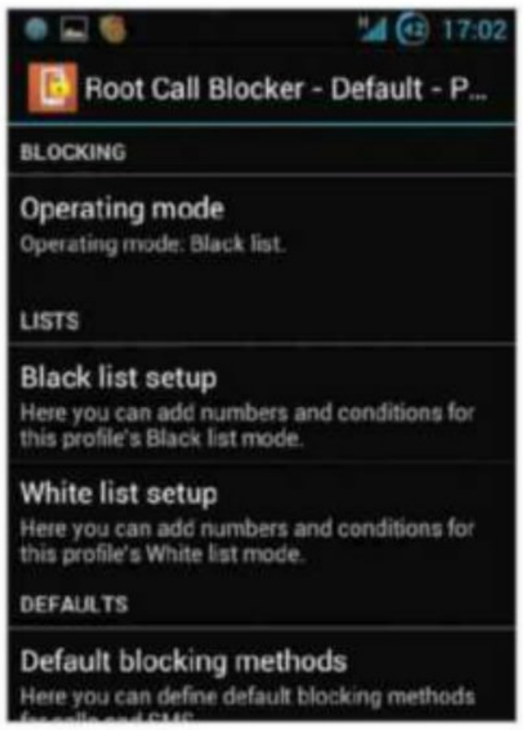
1: Pick a profile

To start with you need to download the Root Call Blocker Pro app from the Google Play store. Open Root Call Blocker Pro and tap on the Profiles button at the bottom of the screen. This will show you a summary of all the profiles that you've created and enable you to manage and build new ones.



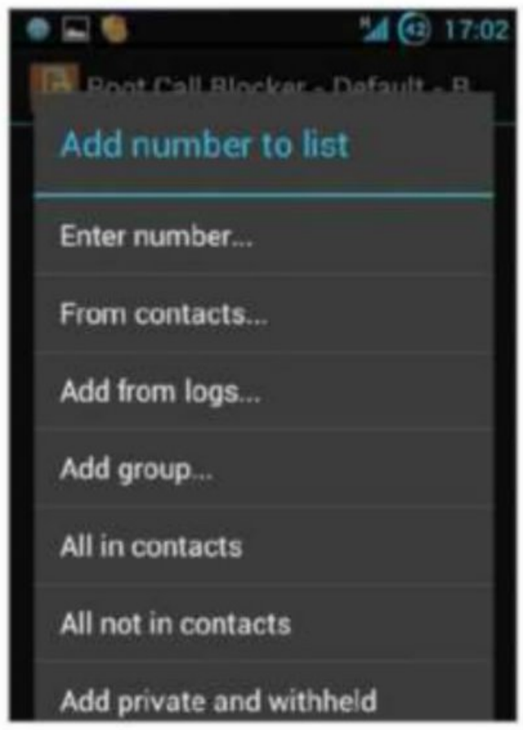
6: Create more profiles

You can also create profiles based around the calls that you do want to allow, rather than the ones you don't. Return to the Profiles screen, click the '+' button in the bottom-right corner and then add a name to start the new profile. Keep it as descriptive as possible so you will always be able to see exactly what it is doing.



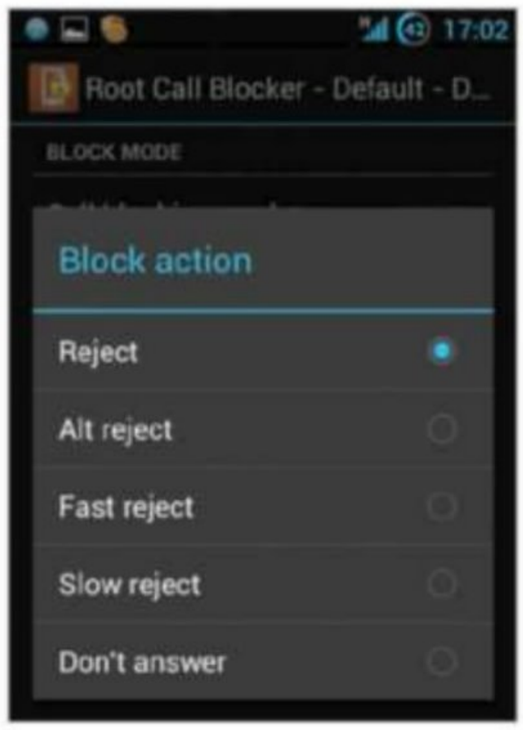
2: Build your black list

Choose the Default profile from the viewable list to get up and running. When you tap on it you'll see a list of options including Black list setup – to choose numbers to block – and White list setup to choose numbers to allow. Tap on the Black list setup option.



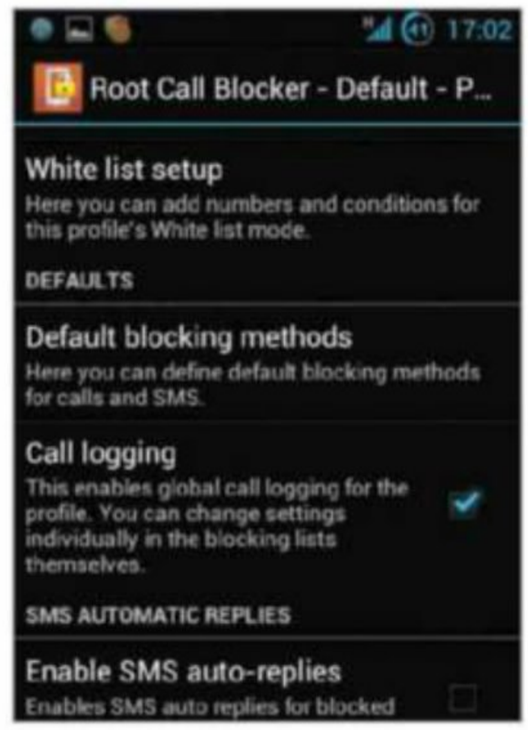
3: Adding unwanted contacts

Now start adding numbers to block. Tap Add and choose from the list. You can enter numbers manually, pick contacts from your Address Book, add from logs (which will show you a list of numbers that have called you), or block those numbers which are not in your contacts.



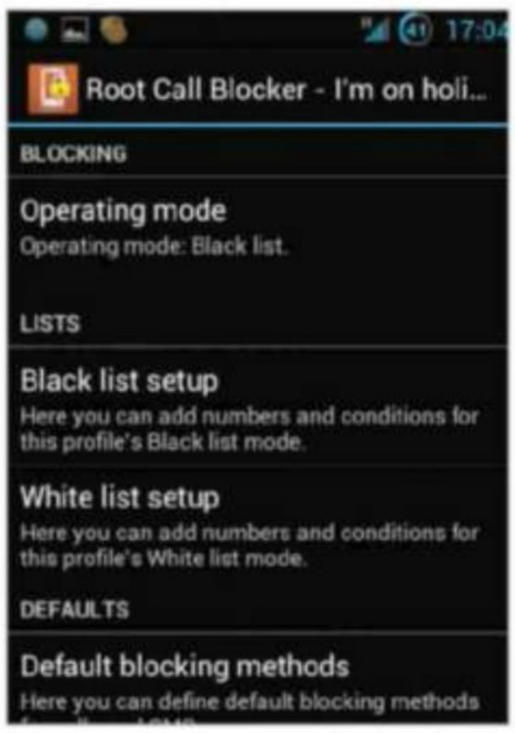
4: Which way to block?

With your black list created press the Back button, then choose the Default blocking methods option. You can now pick how to reject a call. The best options are Reject, which simply blocks the call, or Don't Answer, so it will ring from the caller's end but not yours.



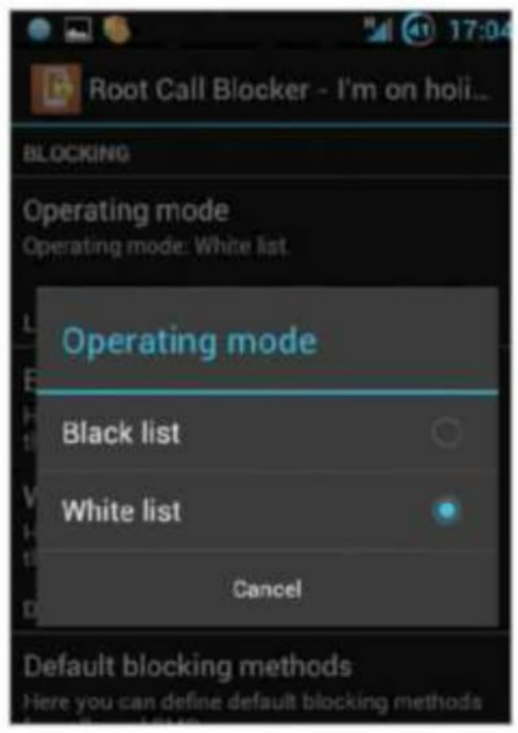
5: Log those calls

Press Back again and finally ensure that the Call logging option is enabled, as it should be by default. This logs all the calls that are blocked and allows you to see how the profile is working for you, and also makes sure that numbers you want to let through to your phone aren't being blocked.



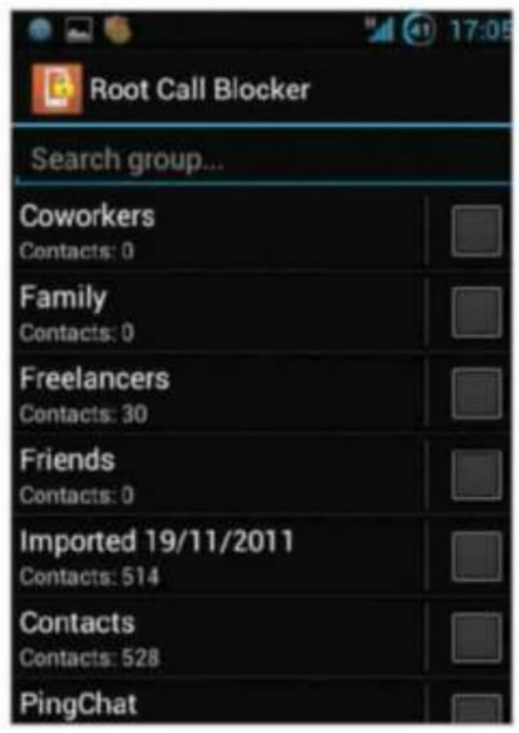
7: Block all but a few

We're going to base this profile around a white list of accepted callers, which means that all numbers not on the white list will be blocked. This kind of profile should be used more sparingly and only for specific purposes, otherwise you may miss important and unexpected calls. You've been warned!



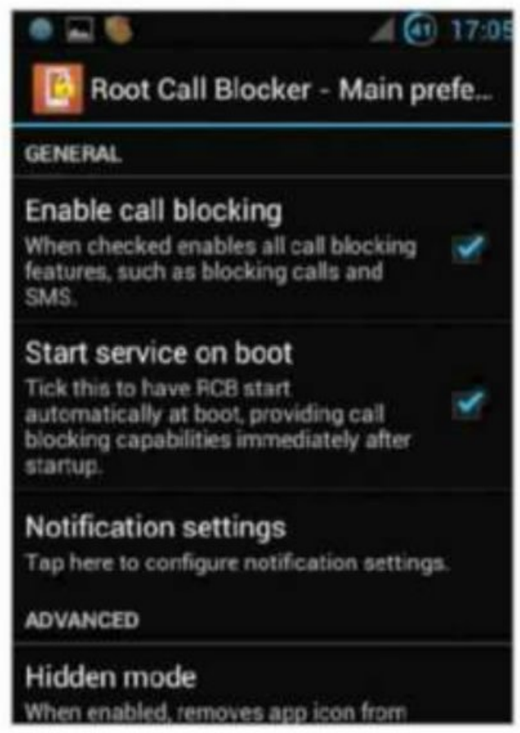
8: Set up a white list

Tap on your new profile to start setting it up. Choose Operating Mode and then select White list from the menu that opens up. You can now start the process of carefully adding your numbers to the list, so be sure to select just the contacts that you want to allow to reach your phone when you are doing this.



9: Add your numbers

Add numbers in the same way that you did in step 3, only this time choosing White list setup instead. For the best results it's a good idea to create groups, e.g. Family, in your address book app. That way you can add them all in one go, and can easily add or remove people from that group in future.



10: Activate the service

With that done, you're now ready to begin using the app. Press the Back button until you get back to the main screen. Now tap the Settings button and tick both Enable call blocking and Start service on boot to activate your new white list profile. By default, blocked calls will appear in your notifications panel.

App used: AdAway **Price:** Free **Time needed:** 20 minutes **Difficulty:** Intermediate

Block web-based ads in your browser

In this tutorial we show you how the power of rooting can help you remove ads from your mobile browser

In some ways ads are a necessary requirement for publishers and developers to monetise their content, and we have nothing against this.

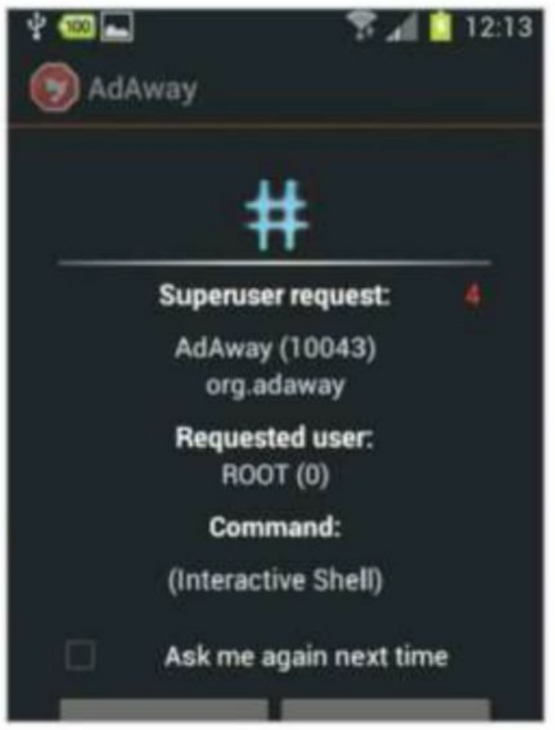
However, when you attempt to browse websites on an Android handset, the ads can become intrusive on several fronts. This is mainly in terms of web-loading performance and the costs involved when running over a mobile data contract.

To combat this we have formed this tutorial which will guide you through removing ads from your mobile browser.

By default, you do have basic pop-up blocking and plug-in controls on your browser (most ICS devices do), which should protect you from certain types of ads, and there are even third-party browsers (e.g. Firefox) that feature ad blocking for non-rooted devices. As this is the Hacks section we wanted to show you a more powerful solution in the form of AdAway.

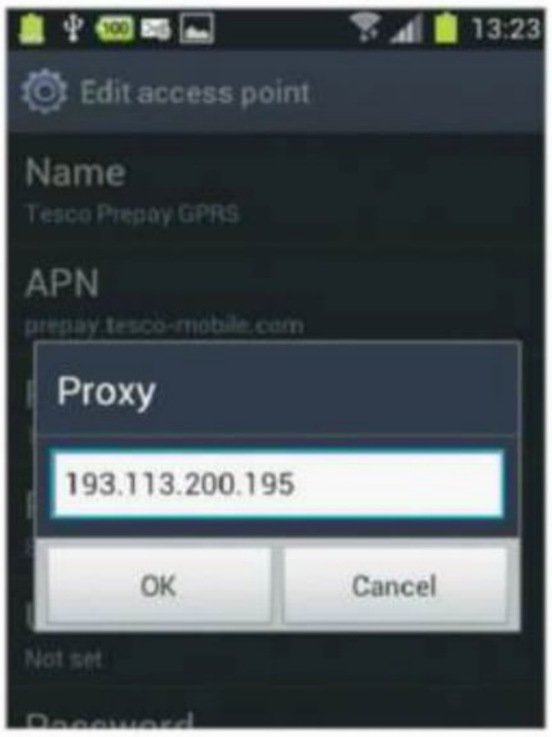
This app does have a lot of advanced features for fine-tuning the ad blocking (which we will cover briefly in the following steps) but for the most part the software utilises host servers that are used to bypass the ad servers which most of the websites and apps tend to use.

Here we use a Samsung Galaxy S II that has been rooted and is equipped with Superuser control. You may find some of the steps will differ on your own handset but for the most part the tutorial should be universal to follow.



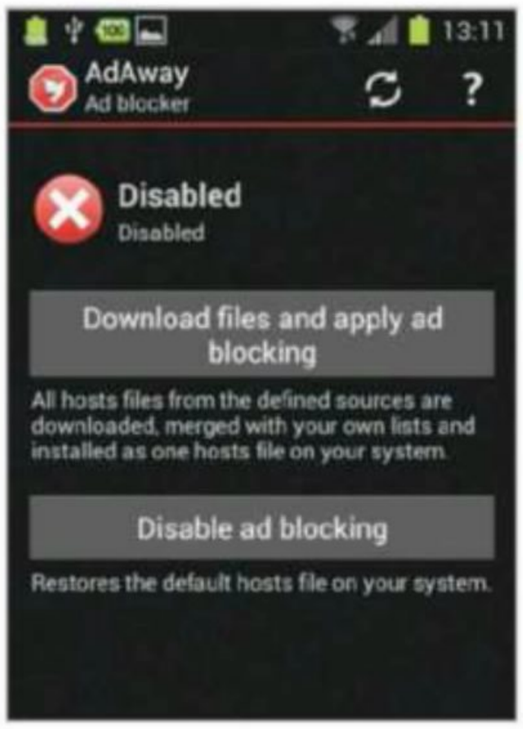
1: Install AdAway (Requires rooted device)

For rooted devices, one of the best apps available for blocking ads is AdAway. Head to the Google Play store and do a search for AdAway. Once you've found it, install the app to your phone as normal and then load it from your app drawer. When prompted, grant the app permission to access the root.



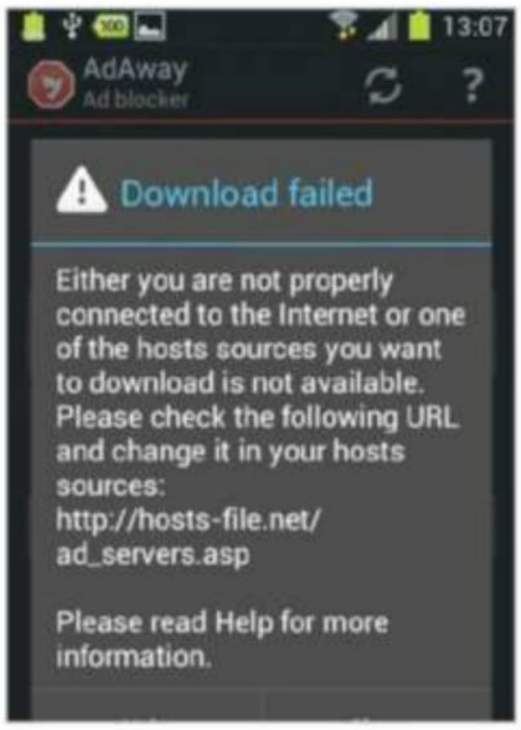
6: Adjust the APN Proxy

Next select your mobile APN (e.g. Tesco or Orange). Navigate to the Proxy heading on this screen and then select this to edit it (but make a note of the IP address already present). Now delete the value inside and click OK. Repeat this process for the Port setting. Press the Android menu button and choose Save.



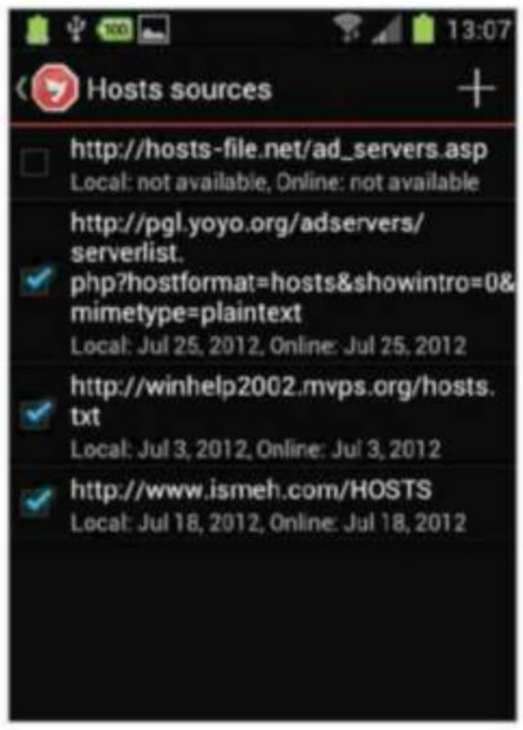
2: Enable ad blocking

With the AdAway software running you now get a few menu options to play with. However, the first step is to pick the option that says Download files and apply ad blocking. Once selected, the software will then download a new host file from its servers – this should not take that long to perform.



3: Download failed

Sometimes the host's servers (which provide the ad blocking) can be down. This will result in a download failure and the software will inform you which host has failed. You can easily remove the affected host and continue the install by pressing the Android menu button and choosing Host Sources.



4: Remove/Adding the Host Source

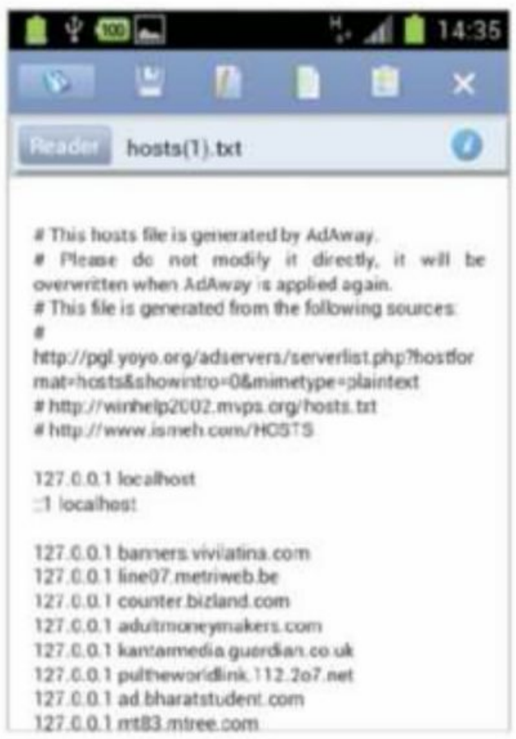
Once inside, tap the affected host source to remove the tick next to its name. However, if you press the + symbol you can also add your own host source if you know of a valid host address. From the Start menu, select the device's built-in Help function (?) and scroll to the end for a list.

5: APN Proxy Set

Repeat the process from Step 2 and reboot the handset when requested. However, if the software flags up an APN Proxy you need to fix this by pressing your Android home button and then (in ICS) head to your phone's Settings/More option. Now tap on Mobile networks followed by Access Point Names.

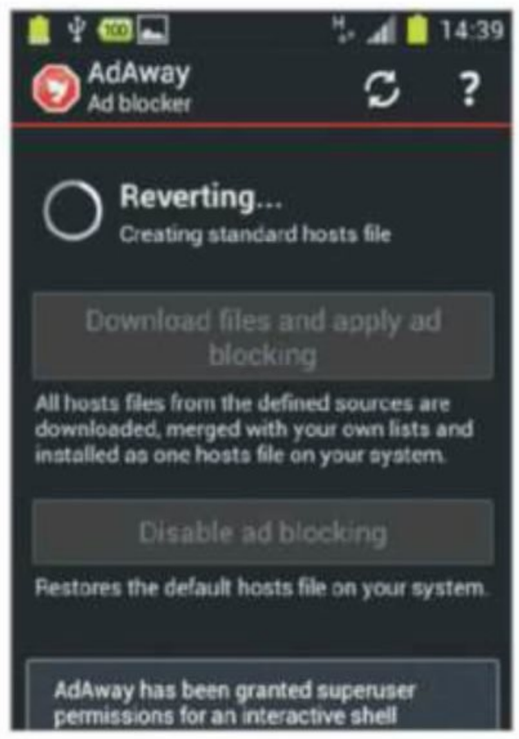
7: Viewing webpages

Once step 6 is complete, go back and re-do step 2, then reboot your device. Once it has boote up again, head to your phone's default web browser and launch a web page where you know there are ads. You should now find the ads are removed (compare the above image with main image to the left).



8: Black lists

If some of the sites are still showing ads then you can create your own host file and upload this to your server. Launch AdAway, then press the menu button and choose Your Lists from the options menu that appears. Inside the BLACK tab, click on the + sign to input your server's host address.



9: Disabling AdAway

Head back to the main menu and click on Download files and apply ad blocking, if you have added your own hosts file. Alternatively, from this screen you can click on the Disable ad blocking option to return your phone to its previous state. A restart will be required for the change to be applied.

10: AdFree Android

If you want something that's a little bit simpler than AdAway, you can download AdFree Android from the Google Play store. This also requires root access, but once installed you can allow it to download any updates it needs and then click on the app's Download & install hosts option to get started.

Time needed: 20 minutes **Difficulty:** Intermediate

Remove the hacks from your Android device

How to get things back to normal when rooting is no longer required

Being able to modify your Android handset is a major boon for Android owners. Devices can be given a whole new lease of life thanks to the excellent custom ROMs that are available. However, there may come a time when the rooting and hacking may need to be undone. It may seem odd to unroot a device when rooting is generally seen to improve things, but there are some legitimate reasons for doing so.

When the time comes to upgrade, it's quite likely that you'll want to sell your phone. A potential buyer may feel more at ease with a normal stock handset.

Another reason is if the handset should develop a warranty fault (e.g. faulty screen, camera). The normal procedure would be to send the device back to the manufacturer. The issue is that they could deem the warranty void should they find evidence of rooting. Unrooting a phone before returning it will remove any evidence of hacking. In turn, this should improve the chances of the repairs going through with the warranty being upheld (although this is arguably an underhanded tactic, so we're not exactly condoning it).

Unfortunately, unrooting can be tricky and definitely carries risks. Different devices require various methods so we can only cover some basic points here. The bottom line is that with unrooting we suggest that you research thoroughly beforehand and proceed with caution.

1: Backup your current ROM installation

Creating a backup of your device is an absolute necessity. We recommend downloading ROM Manager to create a backup or going into Recovery mode and selecting Backup from the menu. This process effectively creates a snapshot of your current setup that can be restored at a later date.

6: Default recovery

It's likely that when you originally rooted your Android device, a custom recovery program was installed. The presence of this will be a giveaway sign to the manufacturer that the phone has been rooted. Re-flash the old recovery from the update.zip file, which can be found inside the system folder.

2: Keep your data safe

Of course, if you're unrooting because you prefer to have a stock handset then you'll want to keep your data with you. While contacts can be saved to the cloud, call lists and SMS conversations will usually be lost. G Cloud Backup, however, is a great free service for backing up these items.

3: Download a stock Android ROM

You'll need a stock version of your device's ROM in order to get a full unroot. Obviously, with so many Android devices on the market, it's not possible to list where to get them all. The best source for stock ROMs is the XDA Developers forum via the site's Search function.

4: Unrooting devices for HTC users

Should you own a HTC device, it's possible to download the corresponding Stock RUU file and flash it (HTC sync will need to be installed). Once flashed, the phone will be back to default stock. If the handset doesn't boot up reconnect the USB lead and run the RUU again.

5: Flash your device's stock ROM

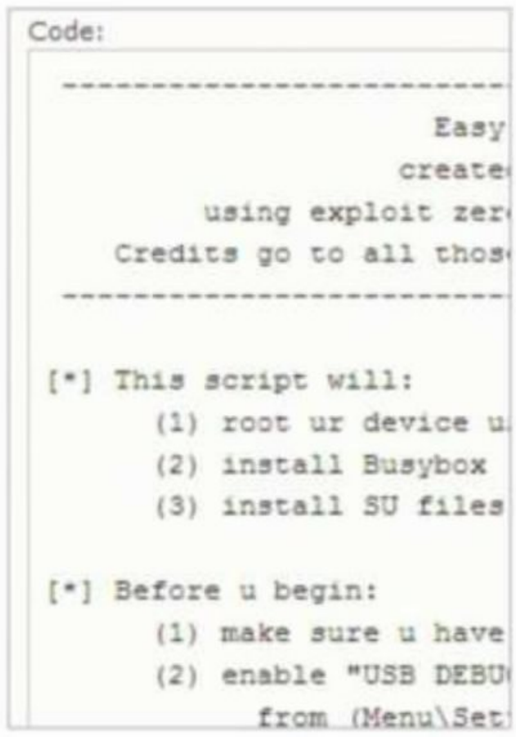
For other devices, flash the stock ROM to your device using either ROM Manager or the Recovery mode on your device. Whichever method you decide to use, make sure that you select the options for Wipe Data/Factory reset, Wipe Cache Partition and wipe Dalvik Cache.

7: Lost the update.zip?

It's possible that you may not have your update.zip file anymore. If this is the case then a guide to reverting to the original recovery can be found over at **http://goo.gl/0Wwgm**. A word of warning: this guide requires the use of ADB (the Android Debug Bridge) via a PC and involves complicated steps.

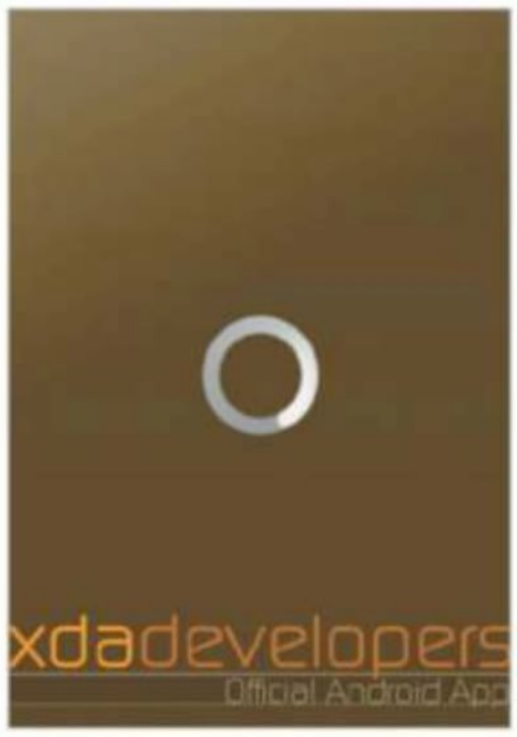
8: Are you rooted?

Once you're back to your original stock rom, you'll want to check that the root capability still exists. Download the Android Terminal Emulator from the Google Play store. Run it and then type 'SU' (without the quotes). If it responds with 'permission denied' then your device has been successfully unrooted.



9: Easy rooting toolkit

Another solution to unrooting is the Easy Rooting Toolkit by DooMLoRD. It supports a good number of newer Android handsets and the thread at **http://bit.ly/tUhQvM** has a dedicated unrooting section. The only stipulation is that it shouldn't be used if the device wasn't originally rooted with it.



10: A little more help?

Unrooting a handset is a far more complicated task than rooting. The processes and technical knowledge that is required between devices varies wildly. Without the right preparation it's possible to damage a device. As always, the XDA forums are the best source of advice for your particular handset.

Apps

Fill your phone with the best apps available on Google Play

Features:

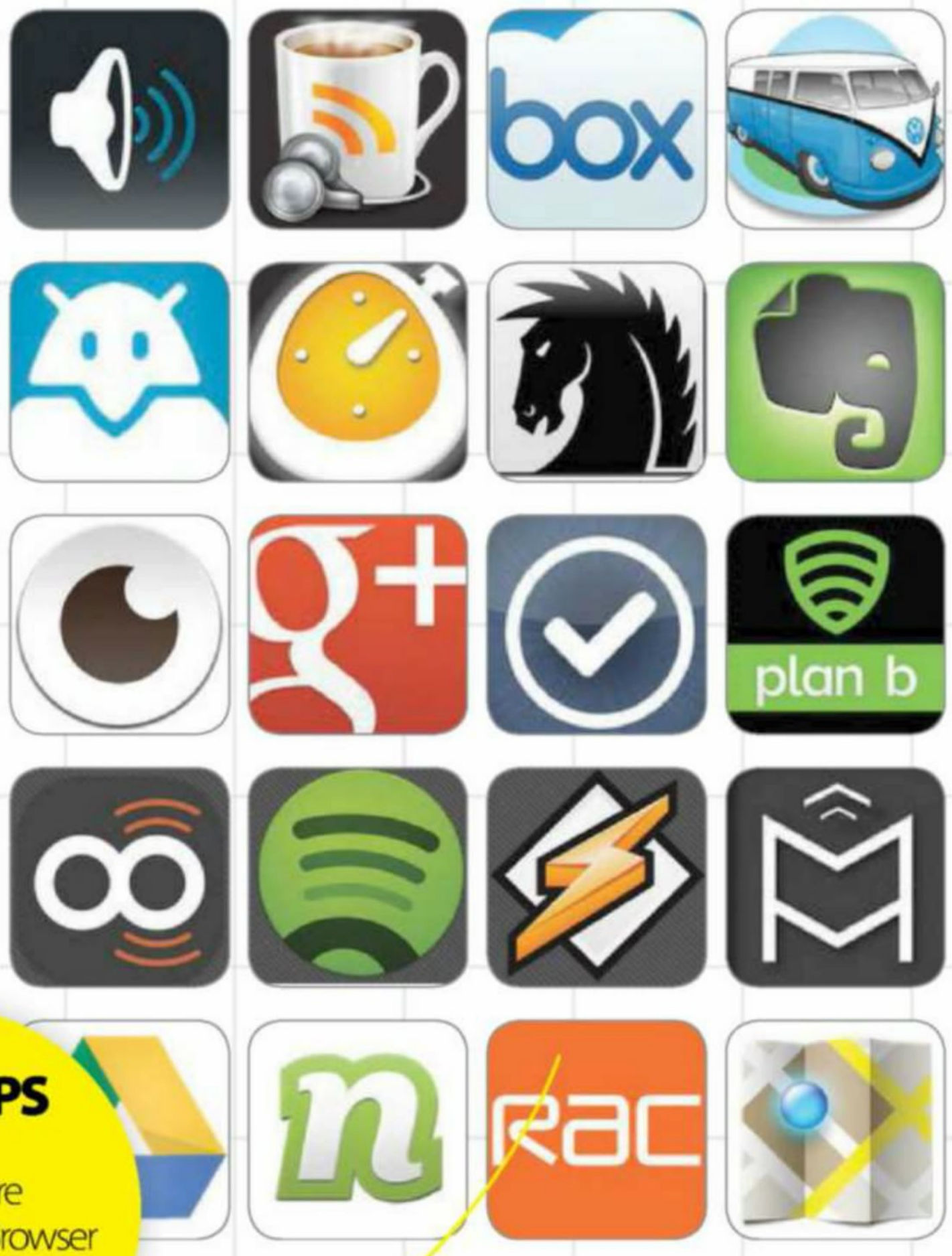
156 The ultimate guide to Google Play
Get the most out of Google's hub for apps, games and more

162 50 greatest ICS apps
Download the very best apps designed for ICS and Jelly Bean

168 Apps for Android only
Discover the Android exclusives

172 De-Google your phone
Replace Google's services with third-party apps

HOT APPS
- ✔ Waze
- ✔ FourSquare
- ✔ Dolphin Browser
- ✔ Google Goggles
- ✔ Plex



164 Get traffic updates and breakdown help

"The things you can now achieve with apps are frankly amazing"

167 Download the Robot Bird client for Twitter

174 Discover the top three challengers to YouTube

166 Find the name and artist of a song playing on the radio

Ultimate guide to Google Play

The Google Play store is the hub for apps, books and movies. Here's everything you possibly need to know about the ultimate media store

Formerly known as the Android Market, the recently Google Play store brought with it an entirely new look and image, but still maintained the same elements as before.

On first instance, you may think that the Google Play store is just for packing your Android device out with the latest and greatest apps, but if you dig a little deeper then you'll soon find a host of other things you can download to enhance your Android OS experience.

Apart from the vast selection of over 400,000 apps, there's also a dedicated book section, entitled Play Books, where users can find their favourite novels and download them on to their device. Thanks to the update to this service, Play Books uses its own dedicated reading service to help show you what you're reading in the best possible quality. The selection is vast, and most can be purchased for a fraction of the price you'd expect to pay within a real life book shop. If a particular book takes your fancy, you can share the details of it to a friend, or post a link to it directly on to Facebook or Twitter. For avid readers there's no need to worry about your vast selection of books clogging up the memory on your device, as every book you choose to download is stored in cloud storage.

The other section within the Google Play store is the movie section, entitled Play Movies. Although a dedicated movie section has been around for a while now, the collection of movies on offer has rapidly grown only recently. Users can now choose

to preview their favourite movies, watch trailers and then rent or purchase the movie. Renting a movie gives you full access to said movie for 24 hours, while purchasing it will keep it on your phone until you decide to delete (only a small selection of movies can be bought outright). The benefits of renting a movie from the Play Movies section is that you can stream it directly on your device, with no download and no fuss.

Fundamentally, the main reason we go on to the Google Play store is to download apps, or in some cases, manage our own apps. With the rebranding of the aforementioned Google Play store, users had more power to control their apps, without having to laboriously go through various settings menus. The My Apps section within the store enables users to check for updates on their currently installed apps, and also see what the update will add to the current app, and notify you of any changes to the app's permissions. Through this section you can also navigate through various app settings, and even get a refund on apps you've purchased up to 15 minutes before. In most cases this will be a tablet or desktop computer, but you can even set up your phone to stream the movie directly to the television in your living room.

The app section of the Google Play store is split in to a variety of sections, all aimed at helping you find the perfect app. As you'd expect, every app that's uploaded is put in to a category. Not only is this a great way of keeping different types of apps separate from each other, it also allows your users to search for a certain category of apps. Even before downloading an app, the Google Play store has a host of options for you to check out. Each dedicated app page has a description of the app, as well as details about how to contact the developer, and also a notification on whether your device will be compatible with it. Paying for apps is a lot simpler with the Google Play store, and you can switch between different payment methods easily. After you've finished downloading the app, the app will then appear in your My Apps section where you can take a closer look at its settings, and receive a refund for it if you don't like it within the first 15 minutes of using it.

The Google Play store is also great at notifying you of any sales that are currently happening within the store, and it isn't too hard to find something with a big discount attached. Although some may think that discounts only happen to certain apps, it's fairly common to see exclusive deals on many books and movies as well. If you're having trouble finding a movie, book or app that takes your fancy, then you can check out the brilliant Trending and Editor's Choice sections. Each section of the Google Play store has a version of the Editor's Choice section that can be found in the Apps section. These are often new films that the store wants to showcase, or in some cases, blockbuster hits that have been highly rated. The Trending section lists some of the most downloaded apps of the past week or so, but the quality is often mixed.

One of the more clever features of the Google Play store is the links that can be made from it directly to your device, especially when you access the store from a desktop computer. If you use the same Google account that's on your Android device when you access the store on your computer, you'll be able to download apps from your computer directly on to your phone. You can also access the My Apps section of the store while on your computer and uninstall any apps from your device.

When you start really digging a little deeper in to the rather plain fascia of the Google Play store, you'll soon uncover a host of new features you wouldn't have noticed before. And with Google pushing out incremental, but frequent updates to the store, the best is surely yet to come.

Getting a refund

Use the first 15 minutes after you pay for an app to decide whether or not you want to keep it. If not, follow this tutorial to get a full refund

1. Find your app

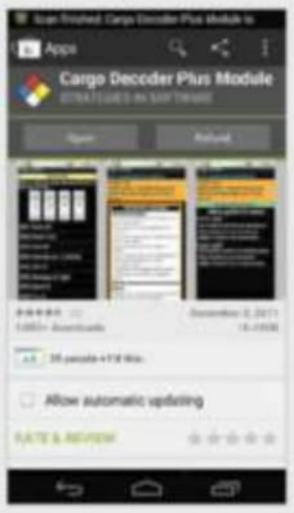
Access the Apps section on your Android device. Use the search function at the top of the screen to find the app you're looking to download on your device. Once you've found the right app you're ready to make a decision to purchase it or not.

2. Buy the app

Click on the Buy option on the application's homepage and follow the different links. Choose your preferred payment option. Then, wait for the app to download before using the crucial 15-minute grace period to decide if you want to keep it or not.

3. Get a refund

If you decide you don't want the app after all, go to the My Apps section within the Google Play store, find the app and press the Refund button in the top-right corner of the user interface. You'll receive an email to confirm that the refund has gone through.



Top apps
Scroll along the top bar to view the various categories. For example, you can see the Top Paid apps currently on the store

Magnifying glass
Use the magnifying glass at the top of the screen to search for a specific app that you're looking to install on your device

Homepage
Some of the more popular apps will be listed on the homepage. By pressing on the tab you can have quick access to them

App previews
On all app previews you can see the cost of the app, the name of the developer, and a star rating it has been given based on user reviews

Apps

It's hard to imagine a world without apps. They remain crucial to the Google Play store, as we find out

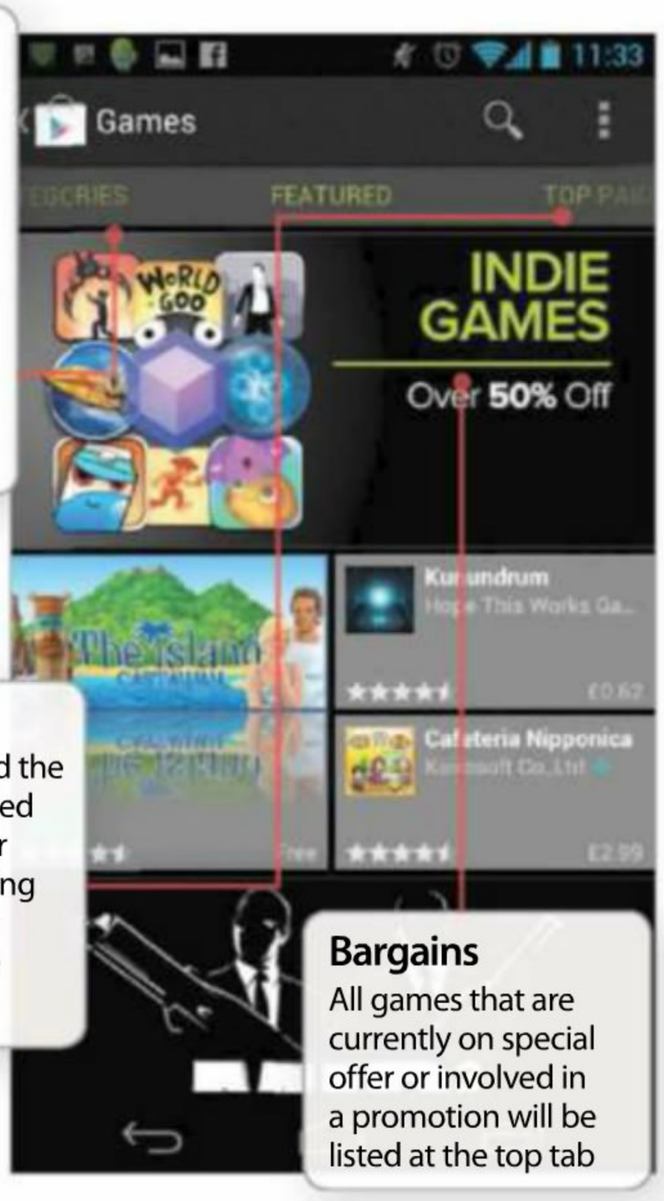
The main reason that most of us decide to venture on to the Google Play store is to invest in some apps, and finding an undiscovered gem is a brilliant feeling.

With the rebranding of the aforementioned store, users have more choice when it comes to, not just downloading apps, but in the way they can manage and control without having to go through a series of complicated settings menus.

The Apps section of the Google Play store is split in to a variety of categories and sections, all aimed at helping you find an app that tickles your fancy. As you'd expect, every app that's uploaded on to the Google Play store is put in to one of the previously mentioned categories. Not only is this a great way of keeping similar app types together, it also allows users to search through a certain category of app. Even before you start downloading an app, the Google Play store has a host of options for you to check out and make sure you enhance your shopping experience while using the store.

On each dedicated app page you'll find a complete overview of the app. Each one has a description of the app, as well as details about how to contact the developer, and also a notification on whether your Android device will be compatible with it.

Paying for apps is also a lot simpler than before, and you can switch between and add new payment methods easily. After you've finished installing the app, you'll be directly taken to the My Apps section where you can take a look at its settings, and receive a refund for it if you don't like it within 15 minutes of using it.



Categories
Scroll through the top bar to see the game categories that you can search through. There's everything from RPGs to sports games

Popular
You can also find the most downloaded free and paid for games by scrolling through the bar at the top of the Games screen

Bargains
All games that are currently on special offer or involved in a promotion will be listed at the top tab

Games

The Android gaming network is ever growing. So much so, it has its own section on the Play store

Gaming is fast becoming a big deal on Android devices. Not only are the quality of devices improving, allowing us to play better quality games, the games themselves are becoming a lot deeper. Within the Google Play store, you'll find a dedicated gaming section, and you may be surprised with how many titles are actually stored away.

The vast selection of titles means you'll always find something that will be of interest to you. You have the Android classics, such as Angry Birds and Cut The Rope, but you'll also find some of the modern titles receiving millions of downloads – the brilliant Zenonia 4 comes to mind here.

Console publishers have also been tinkering with some of their titles to bring them to the small screen. EA Games and Sega are just two examples of companies that have successfully created ports of some of their more popular titles.

The layout to the gaming section is basically a replica of the Apps section, albeit with a few very minor differences. There's a category section which helps split up the games, and within each category is a list of the most downloaded, and highly rated titles. Across the homepage of the gaming section you'll be able to find a variety of tabs that will take you to the top new games (both paid and free) and the highest rated games overall.

Each game has its own dedicated page, and once again you'll find a similar layout to that of a normal app. Many of the paid games have a demo version, so check those out before parting with your hard earned cash.

Books

Your Android device has a multitude of uses, and don't forget its library of the latest and greatest eBook releases

If you're an avid reader, then the chances are that you will want to get plenty of books stored on your Android device. The rebranded Play Books section of the new and improved Google Play store is home to thousands upon thousands of books, all vying for your attention and hoping that you download them. There's plenty of classic fiction to choose from, and of all the popular and well-known authors are accounted for.

On top of that you'll find some modern works, as well as plenty of autobiographies and non-fiction pieces. If you look around, you'll even be able to find some free novels, and there's usually a good deal to be had somewhere on the Play store.

Prices of books vary, but you'll generally end up paying a fraction of the price you'd expect to pay if you bought a hardback. The prices are so competitive that, in no time, you'll have your own personal library to browse through at leisure.

As long as you're logged in to the same Google account that you originally used to download the book, you'll be able to access it from any other Android device. Thus, saving you the time and effort of having to re-download it again.

Although it isn't as savvy as some third-party eReaders, the Play Books app gives you instant access to your downloaded titles, and the built-in eBook reader is packed with many useful features.

Some of the features of the built-in program include being able to easily skip between chapters, highlight and copy text and even share your favourite books among your contacts.

Movies

Getting your hands on a HD movie is made even easier by the new Movies section of the Play store

The ease of watching movies over different Android devices has been vastly improved in the updated Google Play store, and the renamed Play Movies app has been given a makeover as well to make it as accessible as possible.

Movies are split in to various genres, from which individual movies can be downloaded and searched from. You'll also find movies recommended to you within each category.

As long as your Android devices are all connected to the same Google account, you should have no problem in watching your movies over different devices. If you use the same Google account on your desktop computer, you'll also have full access to your movies. If you have more than one Google account, you can sync and share your movies between each account, saving you the time and hassle of having to sign in to a new account every time you want to watch a movie on a different device.

The selection of movies has vastly increased over the past year or so, with Google boasting some big blockbusters on its list. Each movie can be rented in a variety of formats, with some offering HD viewing, though usually for an added cost. The process of renting is easy to complete, and as long as your payment details are in order, you'll be able to enjoy a great range of movies. As well as the movies you can rent from the store, there's also a dedicated section for Personal Videos that you have on your Android smartphone. They can then be streamed directly through the app.

Ten essential Google Play tips

The Google Play store is an easy place to get lost in. Here's our top tips to make sure you get the best experience possible

1: Save your data allowance

One thing to look out for when you start downloading updates is to make sure that you are doing it over Wi-Fi rather than 3G. Bigger updates can use up a lot of your allowance, and the last thing that you want to do is to go over it and incur pricey charges on top of your bill.

2: Allow automatic updating

Within each individual app's page, you'll have the option to enable automatic updating. Although this may seem like a great way of keeping your apps up to date without having to manually do it every time, there's no way of knowing what the update will add to the app, or how much memory it could take. Be very careful though, and also be very selective of the apps you decide to trust, before using this feature on the Google Play store.

3: Check your permissions

With every new update, apps must list their permissions before you download them. In some cases you'll find that an app requires some new permissions for it to run properly. Make sure you read the new permissions carefully.

4: Uninstall an app

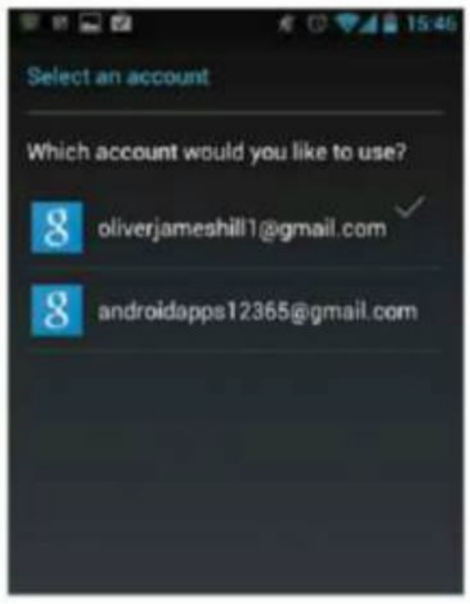
As well as being the place to go for new apps, you can also access the Play store to uninstall unwanted old ones. To do this, you have two options. Either you can use the search function to find the specific app's page and uninstall it from there, or you can uninstall it from within My Apps.

5: Filtering ads

Within the same settings menu as we discussed previously, go to the bottom of the menu until you find the Adverts sub-menu. You can tinker around with the adverts you receive. If you're getting too many adverts, you may want to consider ticking the box that allows for your device to only receive ads that are trusted by Google.

6: Switch between different accounts

If you have more than one Google account on your smartphone, you may not have realised that some of your app downloads are attached to a different account. While on the All screen in the My Apps section, press on the bar that displays the account you're currently signed in with. Doing this will open a menu where you can switch between your accounts, or create a new one from scratch.



7: Remember the refund period

With every paid app you download, you have a 15-minute trial period from which you can decide whether or not you want to keep the app on your device. If you don't like the app, you can simply go back to app's page on the Google Play store and get a full refund there and then. You'll then receive an email notifying you of the refund within the following few minutes.

Alternatives to Google Play

Don't just rely on the Google Play store to find the best apps, books and movies

1Mobile Market

1Mobile Market is a near replica to the original Play store.

The main change are the different sections, which bring different apps to your attention.

GetJar

Although GetJar is a great place to download apps, what makes it really stand out from the crowd is the reward scheme used to get users interested in the lesser-known apps.

AppBrain

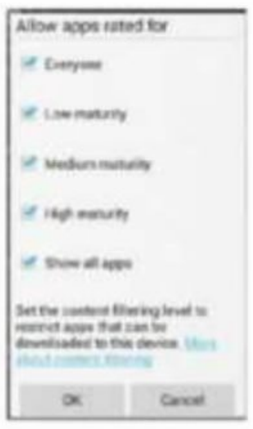
AppBrain is best used in conjunction with Google Play to highlight any app that could potentially hurt your device. This provides an added layer of protection for your device.

Kindle

If you need an app to enhance your collection of books, then Kindle is the app for you. This app was developed by Amazon and gives its users access to over a million titles.

8. Content Filtering

To place some parental controls, access the store's settings by pressing the Options button. From here you can scroll down until you reach Content Filtering. Open this up and select the type of apps you want to be blocked on your phone.

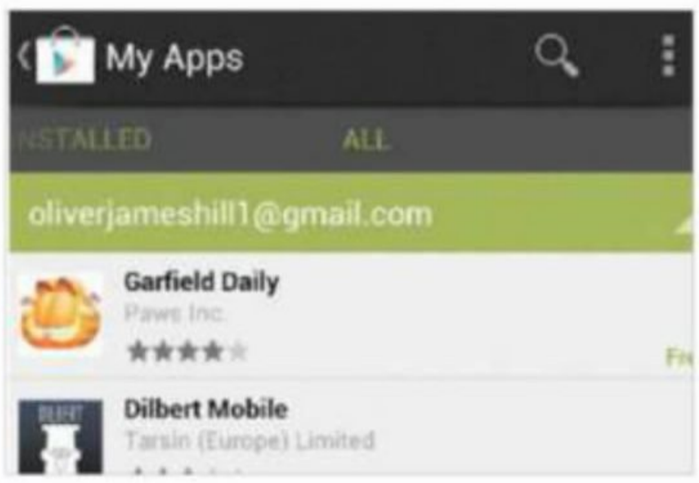


9. Share your apps

When you find an app that might be of interest to a friend of yours, make sure to press the share icon. From here you'll be able to choose the format of the app and how you want to share it. You can even upload the information about the app to one of the many cloud storage apps available.

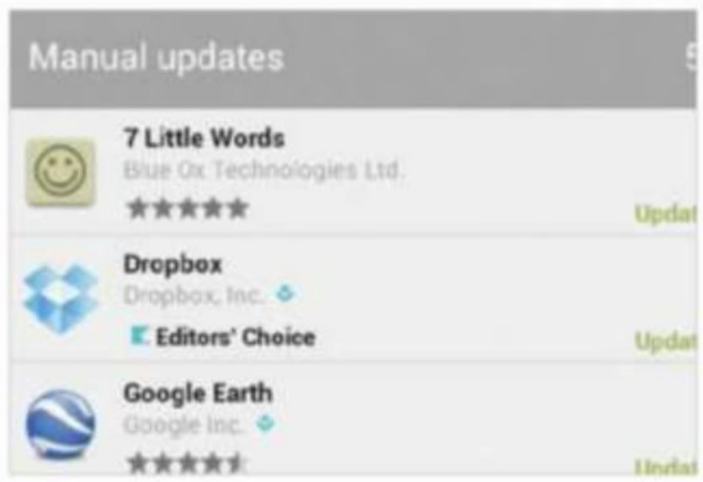
10. My Apps

The My Apps section of the Google Play store is the hub from which you can manage all of your installed and downloaded apps. The first screen you'll see when you access the My Apps section is the Installed screen. At the top will be the apps that require an update, and whether they can be automatically uploaded, or if they require a manual update. The second page for you to check out on the My Apps section is the All page. Here you'll find the details of all the apps you have on your phone, including the ones that came pre-installed on your device. This page is where you need to go if you're looking to switch between various accounts.



Multiple accounts

You can switch between your various Google accounts to see which apps you have installed with each account. There's an option to sync the apps associated with each account together, if you so wish.

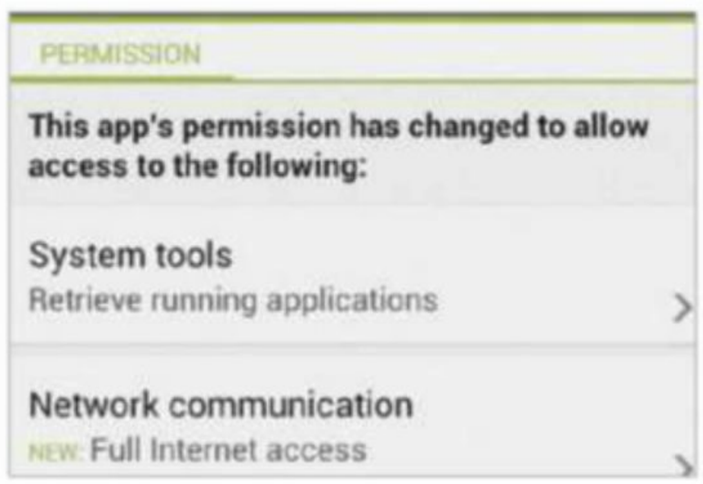


Update your apps

Manual updates require you to go to each app's individual homepage and update it from there. Meanwhile, automatic updates can be made from this menu as well if you prefer to do it this way instead.

All the info you need

Each individual app page has a host of information you can check out before downloading the app. You can take a look at some screenshots, find out if your phone is compatible and read recent user reviews.



Check permissions

When you decide to manually update one of the apps, you can check to see if there's any changes to its permissions. Some permissions could potentially be harmful to your device, so proceed with caution.

Rent a movie

Fancy watching your favourite film on your device? Here's how to rent a movie from the Play store

1. Find your movie

Access the Play Movies section and use the magnifying glass to find the movie you're looking for. If it's a recent release, the film may be on the Play Movies homepage.

2. To HD, or not to HD?

On some movies you'll have the option to rent the movie in high definition. Select the option you want, and then follow the links and pay for the rental of your choice.

3. Start watching

The movie will automatically start to play on your device, but you can stop it at any point. Connect your phone to your TV via HDMI port, if your phone has one, to see the movie on the big screen.

Ultimate Ice Cream Sandwich apps

The Android 4.0 'Holo' theme means developers can now create a uniform set of apps that look both simple and stylish. These are the ones you need to be downloading right away…

Developments are always being made to make Android even better, and with the previous release of Ice Cream Sandwich, software began to take a whole new look. To conform with Android 4.0's new look, a new template for designers was put together to bring a uniform look to apps; named the 'Holo' theme. The look of Holo fits in well with Ice Cream Sandwich's edgy and futuristic look, and the demand for these types of apps is constantly growing.

The Holo theme isn't exclusive to Android 4.0, and you'll find plenty of the apps discussed over the next few pages available on many older operating system updates going back to Gingerbread, Froyo and Honeycomb for tablets. We've waded through the hundreds of Holo-themed apps to bring you the ultimate top 50 that you need to be checking out right away. We've covered a variety of subjects to give you the most comprehensive guide out there. There's a mixture of some well-known apps that most people will know, as well as some you more than likely would not have. So what are you waiting for? Get downloading all of these Holo-themed apps now and give your Android device a more uniformed look!

Essential entertainment apps

Put your feet up and relax with these apps sure to make time fly by

1: Quickpic

Share slide shows of all your photos with your friends on Facebook and Twitter followers with this app. The sharing process is easy, and acts as a gateway to discover new images. What makes it different from similar apps is being able to password protect your photos so only a select band of people can see them.

Price: Free

2: MX Player

The best way to enjoy your movies and other multimedia files on your Android device. MX is the first Android video player than fully supports multi-core decoding, allowing users to view a variety of movie formats through it. Additional codecs for more uncommon file formats can also be downloaded to complete your library, giving you the ultimate media device.

Price: Free

3: Imgur for Android

Imgur is the ultimate anonymous image-sharing app, allowing users to get rid of the standard account system. Multiple images can be uploaded at any one time, and the gallery of images can be altered to suit your style. All the images you edit can be shared between your friends and other Imgur users, although the sharing options are a little basic when compared to similar apps.

Price: Free

4: BeyondPod

If you're looking for a full featured podcast then BeyondPod will suit your needs perfectly. BeyondPod can be integrated with Google Reader for the ultimate news listening and reading experience. The flexible download scheduler will help you pre-plan everything you listen to, while also recommending new material that you may be interested in, based on your listening history.

Price: £4.42/$7.17

5: Vevo

Vevo is a hub for hundreds of music artists all over the world. Through the app you can watch various music videos, as well as share your created playlists among your friends. Vevo's simple design means you won't have trouble finding an artist, and the selection of videos on offer is fantastic. Videos are generally quick to load, and each has been carefully rendered for Android screens.

Price: Free

6: Dark Horse Comics

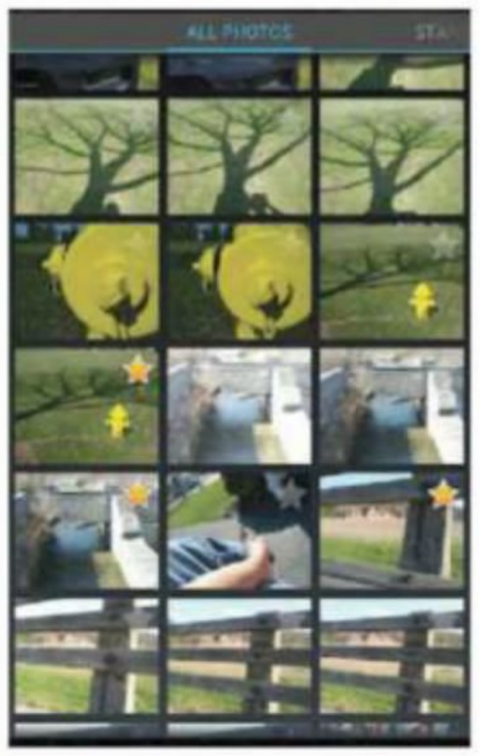
Although it may not be the most well-known comic book app, Dark Horse is the one that best utilises the Holo theme. There's plenty of choice when it comes to comics, with some of the recognised titles costing a little more than the others. Comics look great in the Dark Horse app, and illustrations have been beautifully rendered to offer the best comic book reading experience possible.

Price: Free (comics extra)

7: Shot Control

Shot Control is designed more specifically towards serious photographers; aiming to help them take the perfect shot. You can adjust the white balance of shots, as well as mess around with the flash, exposure and colour levels of each shot. This isn't to say that amateur photographers won't find anything here, as a lot of the basic features are also present and accounted for. One extra that will suit shutterbugs of all skills sets, you can custom map for hardware buttons, such as volume down for the shutter. Regularly updated, this is one app to watch.

Price: £1.25/$2.02



Shots can be instantly shared among friends with easy Google+ upload

Top 5 free apps

Don't bother spending your hard-earned cash, download these apps instead!

8: IMDb

Have access to every detail about every aspect of the film industry with this app. You can view details about movies and leave user reviews.

Price: Free

9: MLB at Bat

If baseball is your sport of choice, this app will be the perfect choice for you. Get the latest news, results and game stats in seconds.

Price: Free

10: Rdio

Rdio has access to one of the largest collection of radio stations from around the world available to Android users.

Price: Free

11: TED

Watch keynote speeches from industry experts. No matter what sector you work in, this app will offer inspiration and education.

Price: Free

12: YouTube

This world-famous video app uses the new Holo theme astonishingly well to provide a simple UI that is quick and efficient.

Price: Free

Travel apps

Use these apps while you're on the road to help you get to know your location

13: Hipmunk

Price: Free

Hipmunk is the ultimate resource if you're looking for an easy way to search for flights and hotels. Through the app you can find bargain deals on flight and hotel combos and last minute deals. Hipmunk also works in conjunction with popular hotel chains.

14: Foodspotting

If you're out and about and fancying a bite to eat then you can use Foodspotting to find nearby restaurants that serve great food. The app works in a number countries, and also acts as a great guide to different cuisines. Everything you've tried on your travels can then be rated through the app, and then shared among your friends and contacts. You can even filter any nearby restaurants to show you the truly best cuisine in the area.

Price: Free

15: Google Earth

Google Earth offers the most comprehensive view of the world around us. Through the street view feature you can pinpoint locations you want to visit while travelling as well as nearby landmarks. The best thing about Google Earth is the sheer scale of it, and you'll be surprised at how broad its view of the Earth truly is. Areas can be zoomed in on, and certain areas include bits of information that you may not have known before.

Price: Free

16: Nosh

What makes Nosh different to similarly styled apps is that while you're travelling, you review the dishes you taste, and not the restaurants themselves. Plenty of restaurants from around the world include dishes that have been reviewed, so you should have no trouble finding a dish that'll tickle your taste buds. When you up-vote or down-vote on a dish you'll be asked to leave a review for others to read. All the votes you cast affect your profile, and the more reviews you leave, the more respected and featured your reviews will become.

Price: Free

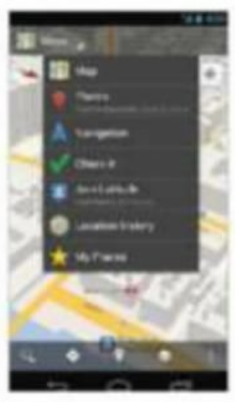
17: RAC Traffic

If you're travelling around the UK, then having the RAC Traffic app is a must. The app allows you to get directions and guides to many areas of the British Isles, as well as several contacts for the RAC help line if your car breaks down. Information on what to do incase of a breakdown is also present, so the app is more than helpful.

Price: Free

18: Google Maps

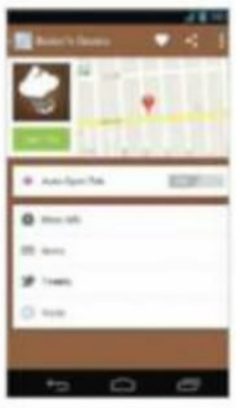
Working in conjunction with Google Earth, Maps is a very reliable resource wherever you are around the world. Its best feature lets you program it to give you directions to a certain place, no matter what the country or the distance. It'll even give you directions and timings if you're using public transport or plan to walk there.



Price: Free

19: Pay with Square

Pay with Square is an ingenious payment app, that saves all the hassle of having to carry around numerous credit cards with you. As well as being a different payment option that works in many countries, you'll also find information regarding products that certain shops stock, as well as reviews of certain places.



Price: Free

Apps to help manage your files

5 stylish apps to help you keep tabs on your work

20: Astro File Manager

ASTRO helps organise all your files in to one easy-to-navigate system, allowing you to not only manage your files, but also share them among users.

Price: Free

21: Google Drive

Drive acts in two very distinct ways. In one instance it works as a storage unit, in another you can use it to view, manage and edit any Google Docs you have.

Price: Free

22: SugarSync

SugarSync is great for managing your multimedia files without taking up lots of data on your device. Upload your files to its server and share them among friends and contacts.

Price: Free

23: Box

As well as offering a good amount of free storage for all their users, Box is a sophisticated app that'll help you transfer your files between different account and platforms.

Price: Free

24: Dropbox

Dropbox is the most established cloud-based storage server on Google Play. Use this app to help manage any photos, documents and audio files you may have.

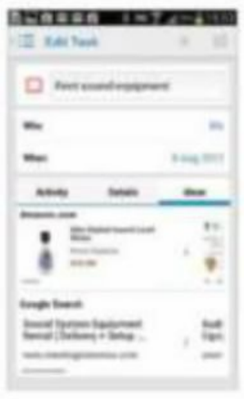
Price: Free

Best business apps

Increase your productivity by downloading these very helpful business apps

25: Astrid

Astrid works as a to-do list with plenty of hidden features to keep its users coming back for more. Its simple, yet stunning design means that keeping your tasks in order is really easy. As well as syncing with Google Tasks, you can also divide tasks between yourself and colleagues that use Astrid. For profit add-ons are also available, including making voice notes.



Price: Free

26: Notes for ICS (formerly Holonotes)

Apart from being one of the best examples of an app using the Holo theme, the recently renamed Notes for ICS is a virtual notepad where you can jot down reminders and any other information you might need. A feature unlike other organiser apps, you can then set passwords to keep notes secure. Syncs with Google Tasks and Android Agenda Widget.

Price: Free

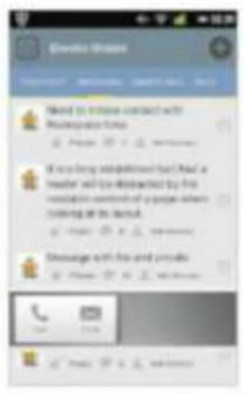
27: Evernote

Evernote is the ultimate note-taking app for Android devices. You can create and store as many notes as your phone can handle, then sync the rest with your desktop or share with others. Each of them can also be added to your home screen to offer you a constant reminder. You can also email notes and save tweets to your Evernote.

Price: Free

28: Camper

If you're familiar with the Basecamp program, then using Camper will suit you perfectly. The app works as a detailed reminder and tracking guide. Meticulously track your projects, from assigning work to a particular person through to calculating out a billable cost for a job. All of Camper's browsing and editing capabilities also work offline, so you don't have to waste time seeking out a Wi-fi hotspot.



Price: Free

29: Google Tasks

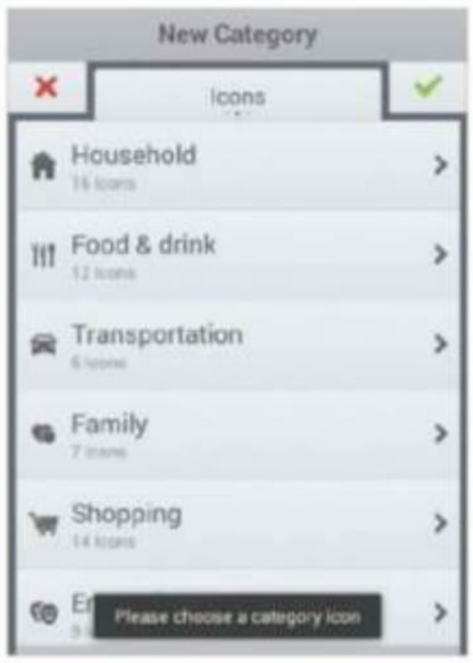
Many organiser apps, including many of those found within this feature, boast that they link with Google Tasks. So why not cut out the middle man and go straight to the source? Google's task app effortlessly syncs with a wide range of other Google and third-party apps, allowing you to link up your various organisers into a single, easily accesible hub. It also gives you a thorough way of managing any upcoming tasks and meetings with a nicely slick checkbox system. Once you've added a new task to the app, it will then sync up with Calendar and Gmail automatically, saving you more time.

Price: Free

30: Gmail

Gmail is one of the easiest, and best supported email clients available for Android. Not only can you keep in contact with important clients and consumers, Gmail even includes a basic notepad and simple to-do list. You can also view and save attachments, set up label notifications and, if your business requires it, manage multiple email accounts all from one place. With a clean elegant design, Gmail is intuitive, efficient and useful.

Price: Free



CashTrack keeps tabs on your finances

31: CashTrack

CashTrack is a simple and hassle-free way of keeping tabs of money that's leaving and entering your back account. The app keeps a detailed backlog of every transaction you enter in it, so you can keep control of your finances. Rather than stuffing a receipt into your back pocket and forgetting about it when you buy an item, enter the amount in CashTrack while your waiting for your change, and with optional settings like automatically geotagging and being able to add descriptions, you don't need to worry about remembering what transaction is which.

Price: Free

Google Tasks will sync up with a plethora of services

Best-ever lifestyle apps

Make your day-to-day life easier to manage…

32: AudioManager

This is a premier audio managing app that enables you to control every aspect of your phone's sounds. You can create different profiles and schedule presets to take effect, such as a louder volume ringtone on the school run and setting 'vibrate only' at while at work.

Price: Free

33: SoundHound

Never be in the position where you can't remember the name of a song while it's playing. Activate SoundHound and within ten seconds you'll have the name of the song and artist. Unique to this type of app, it also identifies songs when you sing them.

Price: £2.99/$4.84

34: Bonfire

Bonfire is a messaging client that allows users to swipe their screen to move between different chat rooms. You can also write emails or carry on working and this sleek-looking app will alert you when you have a message.

Price: Free

35: Zinio

Zinio holds a varied collection of thousands of magazines from across the globe. Read and download single issues or set up a subscription, you can also sync your library with your smart phone, tablet and desktop.

Price: Free (Magazines extra)

36: Pulse

Never miss a headline again with Pulse's novel and award-winning way of storing the latest articles from your favourite sites. The app is constantly updating, and is one of the best examples of an app using the Holo theme.

Price: Free

37: EggDrop

Buy, sell and find great local deals with the EggDrop app. Users can upload information on any deals they've spotted in their area, and others can then review them based on the validity of them. The app's interface is easy to use to find these deals quickly and visually-driven so you can see what your getting.

Price: Free

Follow your favourite feeds with Google Reader

38: Google Reader

Follow all your favourite sites, blogs and news outlets in one tidy place. By syncing with your other Google applications, you'll be able to discover exactly what your friends are also reading.

Price: Free

39: Talent Scout

Browse uploaded photos from users all over the world, and give them advice on how they could improve. You can upload your own if you don't mind facing a barrage of criticism!

Price: £1.22/$1.97

40: Mentions

Mentions enables you to track what people are discussing and talking about in regards to your blog or website. Type your URL in to the app and see what others are saying about you.

Price: £3.17/$5.13

41: SyPressure

SyPressure makes use of the barometer sensor within your Nexus or Note device to show some of the latest weather and wind warnings, keeping you prepared for anything.

Price: Free

Stunning social apps

Never lose contact with your friends with these brilliant Holo-themed social apps

42: Bold

Boid is hands down the best looking and classiest Twitter client in the Play Store, and it's fully featured too. You'll be able to do the typical things such as create tweets, reply to people and scroll with your Twitter feed. But you'll also be able to retweet and share other tweets, and import new followers from your contact list.

Price: Free

43: Bump

Instead of having to send files through Bluetooth, 'bump' two phones together and share photos, contacts and apps instantly. The app is based on NFC technology, but can be used on other phones that don't have the Ice Cream Sandwich update.

Price: Free

44: GigBeat

Never miss a concert by your favourite artist with the GigBeat app. The app gives you helpful reminders of when your favourite bands are playing, and lets you purchase tickets directly through it. There's also support for Songkick, Last.fm and Rdio.

Price: Free

45: Foursquare

Join the 15 million people who use Foursquare to promote your favourite locations and find out about local deals. There are plenty of social aspects to enjoy; including a standard messaging system, and media sharing capabilities.

Price: Free

46: Robot Bird

Robot Bird is another Twitter client but one that has been made especially for ICS users. People who are new to Twitter will particularly enjoy this app as it allows you to simply browse your stream, leave a reply and create your own tweet.

Price: Free

47: Tumblr

Tumblr isn't just one of the best blogging apps available for Android, it also offers all the messaging and sharing features you'd find in any typical social media app. You can share photos and videos between various pages, and your friends can subscribe to your feed. For easy use, there is a widget for your home screen.

Price: Free

48: GroupMe

As you may have expected from the title, GroupMe is a great app if you're looking to send a message to multiple people at once. As well as linking with the normal social media sites, you can also sync with MSN, IM and Skype. If you have a poor connection, the app can switch to receiving messages via SMS.

Price: Free

49: Google +

Google's social network may not have taken off like many were expecting, but it's still a great way to stay in contact with friends. Join your contact's 'circles' and even sync the social networking app with many of your Google-based apps.

Price: Free

50: Reddit News

This app tracks all the latest posts that have been created on the Reddit website, while enabling you to leave comments and create your own posts. The Holo theme works really well here, and the UI makes the app really easy to navigate around.

Price: £1.49/$1.99

ONLY FOR ANDROIDS

It's the world's premier mobile operating system, and there's a whole host of apps out there dedicated exclusively to it…

Sometimes, when you hear about apps it is the iPhone version that appears to get pushed. It seems Apple's handset gets all the attention, not only from the media but developers too. And while it is true that some Android apps can be rather hit and miss in the quality department, there is no mistaking that the phone in your hand is a better device. It's more open, more versatile, more intriguing and it is also awash with exclusive apps. There are offerings which provide solid alternatives to iPhone ones. There are apps which take advantage of Android's feature set, making use of the open source nature to get to the heart of the machine. And there are apps which take the PC or Mac versions and give them a unique spin. Firefox on Apple? It just doesn't exist. The Android OS is a platform rich with boundary-pushing apps. So what goodies await us in the exclusive basket?

Google Drive

Price: Free

Many of us have used Dropbox, but there is a new kid in town when it comes to cloud computing. Google has rebranded and improved upon Google Documents, looking to take on all other cloud storage apps with an offering that is as easy to use as logging in to your Google account.

What this means is that you can not only create word processed documents, spreadsheets and presentations but you can then save them remotely along with any other files that you wish to be made available to you no matter where in the world you are. All of this is done within the one package, it's so good that we would make it the first thing you download to your phone.

Dolphin Browser

You may be quite happy with the in-built Android browser but once you have tried Dolphin, you may change your mind. The browser has multi-touch zooming, tabbed browsing, synced bookmarking with Google and great in-page search facilities and RSS subscriptions via Google Reader. As well as viewing YouTube videos, Dolphin lets you download them, while custom themes and add-ons are also available to tailor your browser.

Price: Free

Tasker

The best way to control any device is to be able to program it in some way. And while Apple is very prescriptive in what you can and can't do with it, Android is much more open-ended. Get Tasker and you can use any of the in-built actions or create your own and these take the sting out of automating tasks on your handset. So you can get your phone to trigger something according to your GPS location, for example. Amazing stuff.

Price: £3.99/$6.49

AirDroid

The best thing about computing nowadays is connectivity. Being able to access your data from multiple devices is what makes apps such as Evernote essential. Enter AirDroid, an app that lets you manage your phone from any browser, without the need to install software to your PC or Mac. Use it to transfer files and delve into items on your SD card, install and uninstall apps and manage your media.

Price: Free

Google Maps

Of course, Apple's phone runs off the best mapping system out there, but the features you get when running the Google Maps app on Android far and away beats anything you get on iOS. The features list - including everything from 3D buildings, navigation, live traffic, Street View, local search, to indoor maps – reads like a boo-hoo guide for braggers to get one over on their Apple chums.

Price: Free

Skitch

Created by Evernote, Skitch is also available on the iPad but not yet on iPhone so this is very much a mobile exclusive for Android. It is a wonderful drawing package that lets you open images, take a photo or start blank and use whatever appears on your screen for annotation purposes. The idea is that you may have an image that you need to explain further, be it with arrows or text. Of course, it's all fully customisable. **Price:** Free

PicsArt - Photo Studio

PicsArt is not a focused art package. It's not an app which lets you apply filters. And it's not something which just adds pretty borders. PicsArt is all three of these rolled into one, making it the best drawing app on Android right now. For its free price anyway. There is an overwhelming number of features which give you amazing control over your images. These include shapes, text, contrast, brightness and filters. **Price:** Free

Desktop favourites

Here's some brilliant desktop to mobile OS ports

Firefox

Being able to sync between the desktop and phone versions of this very popular browser ensures the Android version of the Mozilla classic is well worth installing. Also has tabs, add-ons, and customisable options.

Price: Free

Winamp

If you use Winamp on your PC or Mac, then it follows that you will want to have it on your phone as well. The music management app works well with wireless syncing and you can also import your iTunes Library.

Price: Free

Evernote

Evernote gets better month-by-month it seems, and its note-taking abilities make it a perfect download. You can use it on your desktop and sync to your phone, ensuring your notebooks and missives can be with you wherever you are.

Price: Free

Spotify

Although the monthly cost can be expensive, when you consider that you are able to stream from a choice of millions of songs to your phone, then this Android version of the popular desktop app – with offline listening – is worth every penny.

Price: Free

Any.DO To Do List | Task List

Sometimes an app is so good that you have to question just why it is free. This is one of those. The app's title may be something of a mouthful but the actual bones of the program are not bloated at all. It's a slick affair that will ensure you never forget anything again

Nice touches include the way tasks can be dragged and dropped around the UI. The app links into the contacts on your phone which means you can tap in a memo to call someone or drop them an email and the app will pull up the possible people involved so that you can add them. Deleting tasks is as simple as drawing a line through them.

A widget can be added to the home screen for easy access and there is a Google Task import function. The future looks even more organised, with plans for mass syncing to loads of services.

Price: Free

OnLive

Where as Apple iOS owners can only watch other people play, anyone with a compatible Android device, lets you get in the thick of the action. For those who don't know, OnLive streams blockbuster PC games to internet-connected devices so you don't have to install them.

Price: Free

Dino Life

Exclusive to Android, Dino Life plays like a prehistoric version of The Sims. It involves helping your village through various quests and breeding dinosaurs. By interacting with other players, you can also crossbred your dinosaurs to create all new species. Made in Japan, where Android is very dominant, watch out for many more Android-only games in the future.

Price: Free

Little Empire

Eat this, Apple owners. Little Empire is an amazing back-stabbing game in which you build your own kingdom while trying to prevent your friends from robbing you of your riches. It's multiplayer online gaming at its best, exploring friendship (and the lack of it more to the point). Cute cartoon graphics and loads of fun, a great exclusive app.

Price: Free

Lookout Security & Antivirus

Losing your mobile phone used to be a disaster. They're not cheap and so you'd have all of the hassle of approaching your insurance company or buying another. But with an app such as Lookout, you can discover exactly where your phone is and use it to track down your device. Just as handy is the in-built anti-virus, which helps to protect your phone from damaging malware and spyware. It has a back-up facility as a safety net too.

Price: Free

Doptrix

Try out this trial and you'll soon become hooked. Tetris-like in nature where the blocks form rows that clear the board (and where too many blocks cause the game to end), it does have a trick up its sleeve. The board can flip and spin in order for you to get the perfect spot for your block. Where Tetris can be high on action and frustration, Doptrix aims for a more sedate pace and that means it taxes the brain rather more. Again, it's only available on the Android OS and we thank the developers for it!

Price: Free

Google Goggles

Price: Free

Google Goggles is something of a marvel and it's only available on Android. It works pictorially, using image recognition technology to identify landmarks, art, books and so much more. It comes in handy as a barcode and QR scanner and it also lets you add contacts from business cards just by passing your phone's camera over it.

But for us, the killer feature is the ability for Goggles to translate from one language to another. By opening the app and selecting the Snapshot option from the main menu, you use your camera to point at a word or phrase and the app will translate it for you once you have drawn around the specific words that you wish to decipher. Even better, you can not only see the translation on a full page, but Google Goggles will also perform a web search, looking for entries which relate to that word or phrase. This can be retained in the phone's memory. It's one of those applications that every Apple iOS mobile device owner would love to get their hands on because it is so versatile – not to mention free – and so incredibly useful.

Translate words and phrases with the Google Goggles app

Attack of the clones

Whatever Apple can do, Android can do even better…

Swype

Dragon Dictation is a solid Apple addition, and this app includes similar technology. Android-only Swype also spanks iOS devices by letting you type with one continuous stylus motion across the screen.

Price: Free

Rocket Music Player

For all of its greatness, iTunes is not perfect by any means. And besides it's not out for Android. This is, though, ramping up the amps with an intuitive interface that lets you create and edit playlists and sync with your iTunes Library.

Price: Free

Plan B

A handy feature for iOS users is Find My iPhone but Plan B is even better. It uses GPS to home in on your phone, giving you updates as to its whereabouts.

Price: Free

PocketBand Pro

There's a free version available, but this iteration is about as close as you'll get to GarageBand, with a 12-channel effect-laden mixer and dozens of instruments.

Price: £5.18/$7.99

DE-Google™ YOUR PHONE

Don't use Google services? Here's our indispensible guide to the best third-party apps you can get on your phone

When you turn on your Android device for the first time, one of the things you'll notice is the range of Google apps that come on most Android devices. After creating a Google account, you'll have access to all these apps, and be able to interlink between them. Google has done a great job of linking their apps together, and if you really didn't want to, you'd be able to avoid downloading any other app, as Google has you pretty much covered.

In some cases, however, Google's apps may not be what you really want on your device – maybe you're not a Gmail user, perhaps you prefer Microsoft's services – and luckily for you, and the millions of other Android users around the world, there are plenty of alternatives for you to try out. Although Google apps come pre-installed on your device, some of them can be removed from your device, and replaced by apps created by a third-party developer. Be it a replacement browser for Chrome, or a new email client to succeed Gmail, there's plenty of choice, and best of all, most of them won't cost you a single penny.

So if you're looking to completely de-Google your phone, then read on as we take you through the best of Google's apps, and the fantastic alternatives that you should download right away. It's not a complicated process, so enjoy learning about the world without Google.

Google Maps

The most famous of all the Google apps, but is it also the most disposable?

Google Maps is arguably the foremost of all the Google apps on the Android phone. It acts as a navigation tool for anyone looking to travel; users can pinpoint an exact location while also receiving directions to it, or get a street view of a particular place. By activating your device's GPS capabilities, you can also use Google Maps as a voice guided system, saving you the money it would cost to buy a satnav. However, none of these features are better than any of their standalone counterparts. The turn-by-turn navigation, for instance, requires you to have an active data connection throughout your journey in order to download the maps as you drive, and its voice guidance tends to have a more 'robotic' quality than the more human voices you'll hear elsewhere.

Navigate without Google Maps

Here are six alternatives that are just as good, if not better!

Price: Free **Requires version:** 1.5

AA Breakdown & Traffic

The AA is the ultimate app for directions to a place in the UK. The app locks on to your location automatically, and constantly updates with the latest traffic and weather news for your journey.

Pros: Comes from a trusted brand; free; easy to use
Cons: Doesn't integrate well with other apps

Price: Free **Requires version:** 2.0

Waze

Not only does Waze offer most of the functions that Google Maps offers, but it also has a place for drivers in a local area to connect with each other and discuss problems with the roads in the area.

Pros: Free; fully featured app; real time updates
Cons: Local info dependent on users in your area

Price: From £20.32/$10 **Requires version:** 1.6

CoPilot Live

In terms of an app being used as a satnav, you won't find any more clear and concise than CoPilot. Although comes at a high price, you're paying for quality, with detail that is much more precise than Google Maps.

Pros: High quality mapping; very clear directions
Cons: Expensive, although the lite version is free

Price: Free **Requires version:** Browser

Nokia Maps

A web-based GPS system that has a lot of decent features going for it. You can get a set of directions, which you can then print off, as well as some basic tracking options.

Pros: High-quality mapping; great location searches
Cons: Runs in browser and so may have speed issues

Price: Free **Requires version:** 1.6

Yell

This supercharged version of the Places function in Google Maps gives you the most comprehensive guide to businesses and locations within the UK. It's fast and is very easy to use, and even though it uses Google Maps for directions you can view these in a web browser instead of the actual app.

Pros: Comprehensive business database; easy to use
Cons: Content only for UK; reliant on Google Maps

Price: £9.99/$15.91 **Requires version:** 2.1

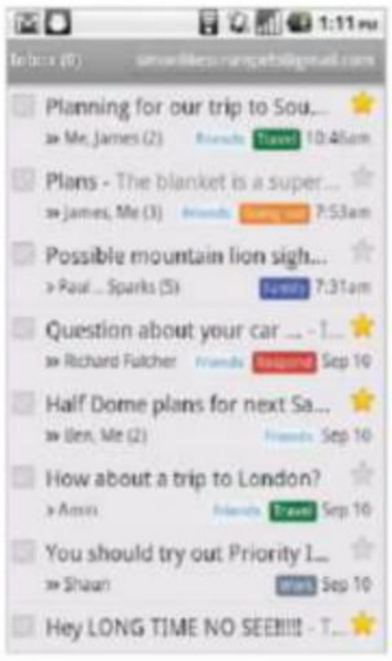
WikiTude Drive

Google Maps Street View is good, but it's really just a bunch of static, and sometimes out of date, images. WikiTude gives you the Street View effect but it uses a live image taken in real time from your Android smartphone's camera, helping you get your bearings as you follow its navigation directions.

Pros: Combines street view and local knowledge
Cons: Needs live data connection; drains the battery

Gmail vs the best of the rest

Gmail is the official email client from Google, but is it better than two of the other most popular email apps around?

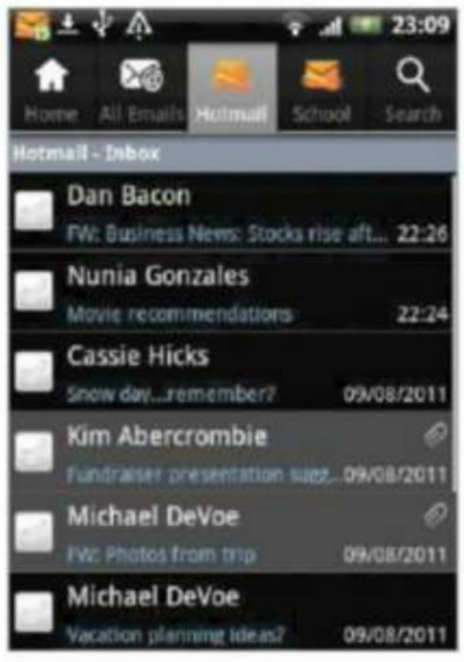


Price: Free

Requires version: 2.2

Gmail

As you'd expect with any Google app, there are plenty of features to keep you busy here. You can link your Gmail account with a number of other Google apps, as well as do all the standard email functions you'd expect. You can integrate your Gmail with several cloud-based networks which is a feature other email clients don't offer. The app itself is excellent, and includes all the features that are key to the Gmail service, such as the ability to view starred messages.



Price: Free

Requires version: 2.1

Hotmail

If you're choosing an email client for its ease of use, then the Hotmail app is for you. Simple, effective, but perhaps lacking in features in some areas and inevitably it doesn't integrate with the Android OS in the same way that Gmail does. Messages are delivered in real time with added calendar and contact syncing. If you're looking to switch from Google, it's also relatively easy to import your Gmail messages.

Price: Free

Requires version: 2.0

Yahoo! Mail

Creating a Yahoo! Mail account will give you access to the whole Yahoo! hub. This means that while you're sending an email, you'll be able to check the weather, read the latest headlines and see the latest lottery numbers. The way it also links in with a host of different Yahoo! services, such as Flickr, is second to none. However, Yahoo!'s actual Mail service is no longer among the best options, and finding a username you're happy with is a painful task in itself.

Winning app:

Gmail™ by Google

If you're starting from scratch then the Microsoft route may be one worth considering. The Hotmail and Live experience is impressive, and the app functions well enough on an Android phone to make it a reasonably effective replacement for Google. But if you're already hooked on Gmail you'll find it hard to wean yourself off the beautifully designed, easy to use, fully Android OS integrated Gmail app.

Three alternatives to YouTube

Which apps can challenge the long-standing, Google-owned king of video streaming?

Price: Free

Requires version: 2.1

Ustream

As its name suggests, this app live stream videos. Easily navigable, varied content comes from all over the world, watched at any one time by 20,000 people.

Price: £3.15/$5.01

Requires version: 1.6

Plex

Plex is a unique blend of being able to watch videos and browse the latest headlines all in the same app. Quality is very high, and 90% of all videos are streamed in HD.

Price: Free

Requires version: 2.3

Vimeo

Though Vimeo has less content than YouTube, it has a better range of abstract videos - rather than merely being a dumping ground for stupid animal videos.

De-Google the web

Google Chrome is a premier web browser, but there are smart alternatives to try out…

Web browsing is becoming a more prevalent feature on Android smartphones and tablets nowadays.

With the previous update to the Android OS, Ice Cream Sandwich, Google launched its Chrome browser. Although it was already an extremely popular choice when it came to desktop browsing, the port for Chrome over to Android devices took longer than expected. One of the best things about Google Chrome is that it is aimed at building on the success of some of the more established mobile browsers, while it implements a few standout features of its own. But there are plenty of alternatives, and some which do the job that Chrome does, but even better!

When it comes to de-Googling the web, you'll want to take a look at some alternative browsers. One of the most highly regarded browsers has to be Opera Mini. Version 7 was recently released, and promised an even more speedy and reliable browser than ever before. Opera Mini is a good choice for many reasons, firstly the browser adjusts itself to accommodate different sized text, and it renders images surprisingly quickly. The other real alternative is Dolphin Browser HD; another sophisticated browser that's perfect for tabbed browsing.

Google's search engine also comes as the standard practice for all Android devices. If you're in the US, then you might want to change to using Bing. Microsoft's search engine has come on leaps and bounds in recent times, and now offers integration with its own Google Maps-esque software. Yahoo! is another strong contender, and although not as popular as Google's, it's still one of the most accomplished search engines around.

There's no doubt that both Google Chrome and the Google Search function are brilliant services. But by de-Googling the web on your Android device, you'll open yourself up to a whole lot of new apps and features that you'd never of thought your phone was capable of. So what are you waiting for?

Try another browser if you're tired of Chrome

Google Chrome is only available on ICS phones

Replace the Google Search widget

Learn how to remove and replace the current Google Search widget

1. First step

Long-press on the Google Search widget until a menu appears. Then tap on the Remove option.

2. Replacement

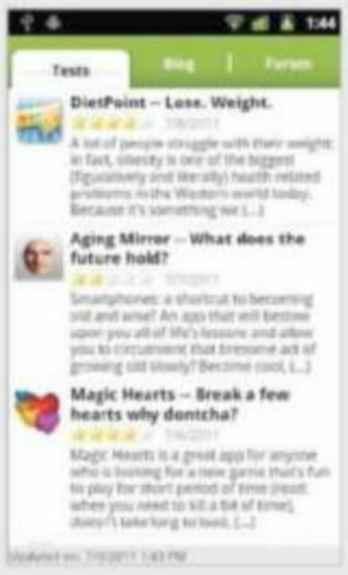
Go to the your app drawer and select a new search widget. Hold your finger on it, select the screen and a desired location for the widget.

3. New bar

Let go of the widget when you've decided on a suitable screen and place for it. The new search bar will drop on to the screen and be ready to use right away.

Three Alternatives to the Play Store

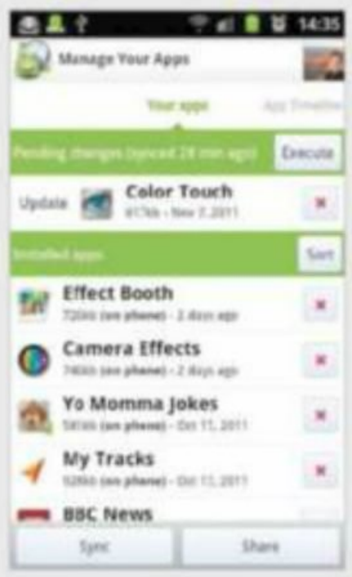
Google Play isn't the only place to download the latest apps from…



Price: Free
Requires version: 1.6

AndroidPIT

AndroidPIT has a more community-based take on the Play store. You will find in-depth reviews and a bustling forum in addition to the marketplace.



Price: Free
Requires version: 1.6

AppBrain

AppBrain's shows you the latest apps to receive a price drop, which is great for looking after your pennies. You can also share your app recommendations via social networks.

Price: Free
Requires version: 1.6

1Mobile Market

The overall presentation of the 1Mobile Market app is very similar to Google Play, but instead of listing every app, 1Mobile only lists free apps.

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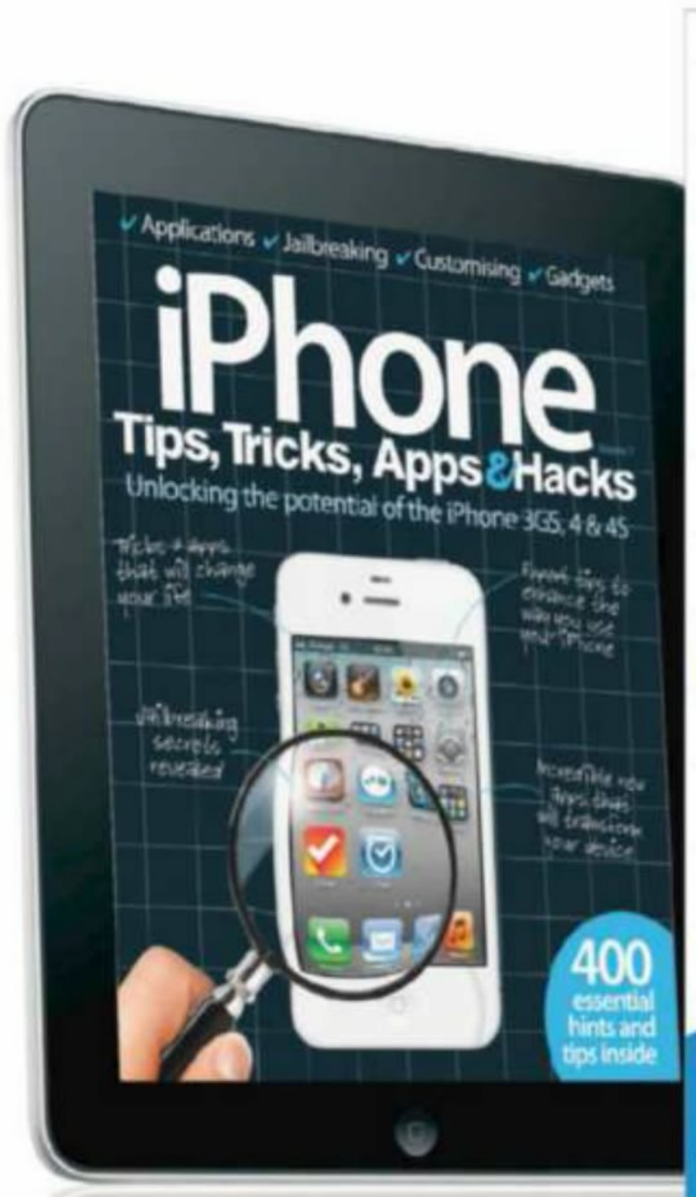

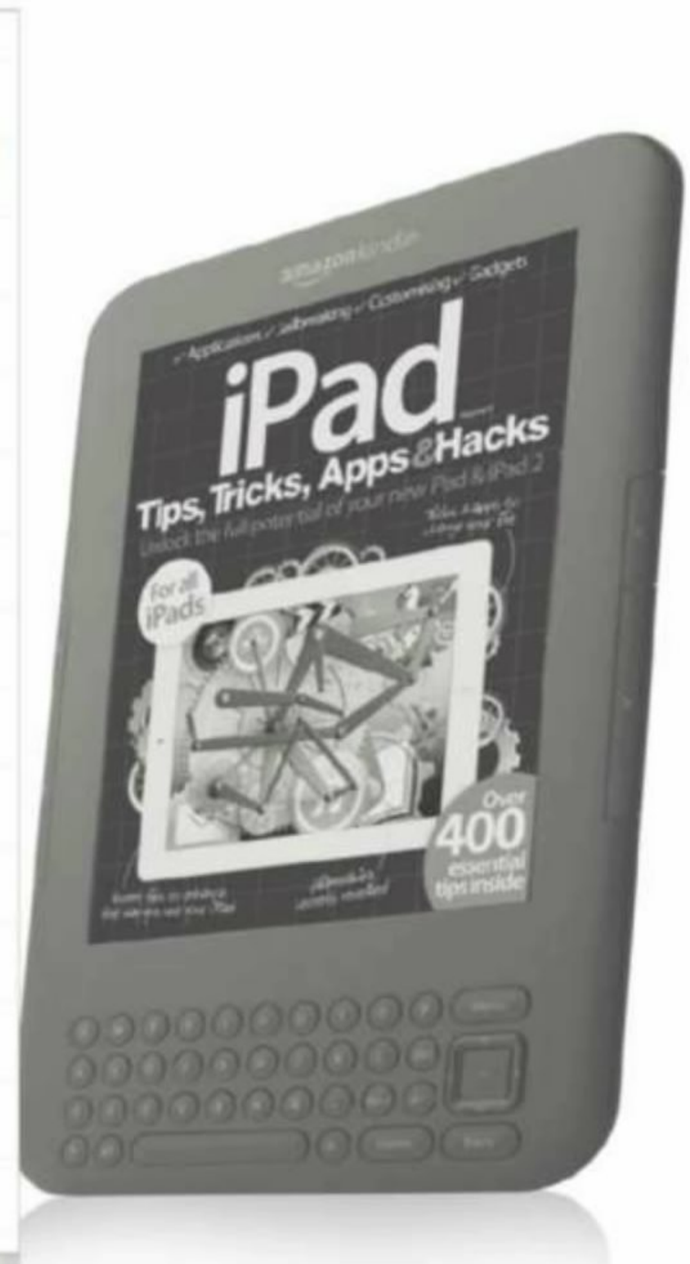

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Android

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Tricks
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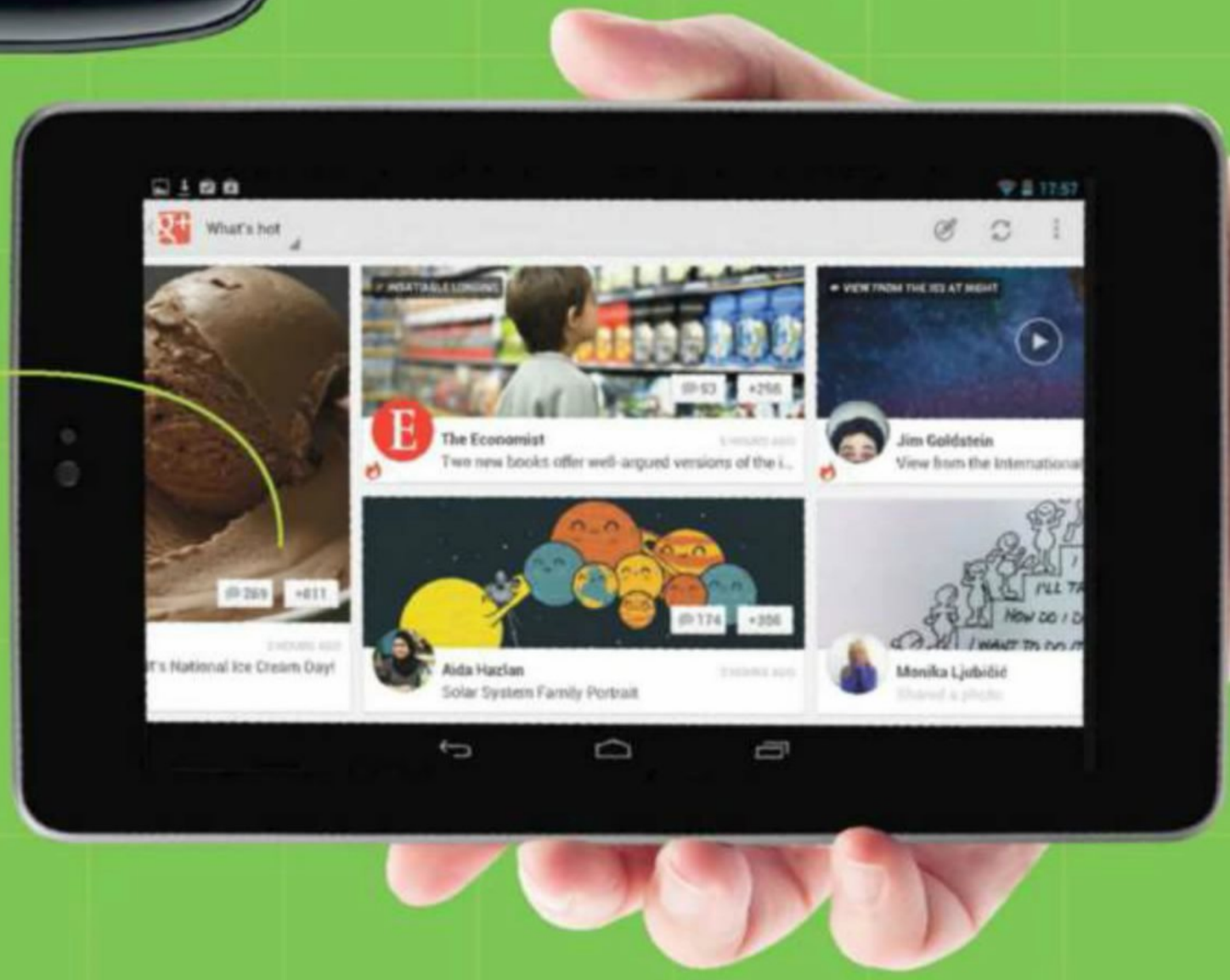
Apps
Discover the best Android-only apps and find out how to de-Google your phone

Hacks
Enhance every aspect of your device and personalise it to meet your needs



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